

**UNDERGROUND INJECTION CONTROL
PERMIT APPLICATION**

**Ute Tribal # 31-03
422' FNL & 2338' FWL
Sec. 31, T5S-R3W
Duchesne County, Utah
API # 43-013-31188**

July 2015

Prepared for:
Bruce Suchomel
Groundwater Program, Mail Code 8P-W-UIC
U.S. Environmental Protection Agency
1595 Wynkoop St
Denver, CO 80202-1129

Prepared by:
Petroglyph Energy, INC.
960 Broadway Avenue, Suite 500, P.O. Box 70019
Boise, Idaho 83707
(208) 685-7600
FAX (208) 685-7605

LIST OF ATTACHMENTS

- Attachment No. 1 Area Topography Map
- Attachment No. 2 Site Map
- Attachment No. 3 Map of the A-Marker surface
- Attachment No. 4 Cross-Sections of the injection formation
- Attachment No. 5 Water Analysis
- Attachment No. 6 Completion data for all wells in the AOR
- Attachment No. 7 CBL for the UIC well
- Attachment No. 8 Open hole log for the UIC well
- Attachment No. 9 List of owners and Affidavit Notification
- Attachment No. 10 Well bore diagrams for the UIC well
- Attachment No. 11 P&A procedure
- Attachment No. 12 MIT procedure
- Attachment No. 13 Surety Bond letter

SUMMARY DOCUMENT
UIC WELL APPLICATION
Ute Tribal 31-03
API # 43-013-31188

The following document contains information provided in support of the application for the conversion of the Ute Tribal 31-03 well to an injection well in the Green River formation in the Antelope Creek Field in Duchesne County, Utah.

The Antelope Creek Field falls within the Uintah and Ouray Indian reservations and is within Indian Country; therefore, for facilities located on the reservation, only EPA-issued UIC permits are necessary for compliance with UIC regulations.

The EPA has issued an Area Permit #UT20736-00000 for the Underground Injection Control for the Antelope Creek Field. This area permit allows for additional producing wells to be converted to injection wells for enhanced recovery.

- (1) Petroglyph Energy, Inc. (Petroglyph) is the operator and only working interest owner of wells located in the Antelope creek Field, Duchesne County, Utah. Petroglyph's business address is provided below:

Petroglyph Energy, Inc.
960 Broadway Avenue, Suite 500
P.O. Box 70019
Boise, ID 83707

- (2) Enclosed as Attachment No. 1 is a topographic map of a portion of the Antelope Creek Field, identifying all wells located in this area. The legal location for the Ute Tribal 31-03 is 422' FNL & 2338' FWL NE/NW Sec. 31, T5S-R3W.
- (3) Attachment No. 2 is a map of the well. This map shows a circle with a ¼ mile radius centered on the Ute Tribal 31-03 well. The ¼ mile radius encompasses the area of review, AOR, within which Petroglyph is required to investigate all wells for mechanical integrity. The ¼ mile radius also identifies mineral ownership; all lands within the AOR are leased to Petroglyph by the Ute Tribe as indicated by yellow shading. The AOR has Ute Tribal 30-14, Ute Tribal 30-14N, and Ute Tribal 31-02 well(s) located in its ¼ mile radius.

- (4) Petroglyph proposes to utilize the Ute Tribal 31-03 as an injection well for enhanced recovery in the Antelope Creek Field.
- (5) Injection Zone – The injection intervals are between 3968' and 5944' True Vertical Depth and located in the lower portion of the Green River Formation. The injection zone is confined within a 1976' section between the Green River "A" Lime marker bed and the top of the Basal Carbonate in the lower part of the formation. The injection zone is composed of lenticular calcareous sandstones interbedded with low permeable carbonates and calcareous shales. The lenticular sandstones vary in thickness from 1 to 30 feet.

Confining Zone – The overall confining strata above the injection zone consists of impermeable Green River calcareous shales and continuous beds of microcrystalline dolostone. The confining zone in the Ute Tribal 31-03 is 222 feet thick.

Attachment No. 3 is a structure map of the A-Marker surface.

Attachment No. 4 is a cross-section of the injection interval and confining zone.

- (6) Enclosed as Attachment No. 5 are standard analyses of produced water from three batteries that currently serve as central handling facilities for all project producing wells. The analysis of the Green River formation water from the Ute Tribal 18-08 Satellite Battery is 12805 mg/L of total dissolved solids (TDS), Ute Tribal 21-11 Satellite Battery is 15659 mg/L TDS, and Ute Tribal 34-12-D3 Satellite Battery is 14590 mg/L TDS.

Injectate in the field is a mixture of produced water and fresh make-up water. The nearest injection well is the Ute Tribal 30-15, the most recent analysis of the water being injected into the Green River formation at this location is 10160 mg/L TDS. This analysis is also included in Attachment No. 5.

- (7) A summary of completion data from the Ute Tribal 31-03 and offset wells in the AOR are included in Attachment No. 6
- (8) The cement bond log is included in Attachment No. 7.
- (9) The open hole log for the Ute Tribal 31-03 is included in Attachment No. 8.

- (10) The Antelope Creek Field is operated under a Cooperative Plan of Development between the Ute Tribe and Petroglyph Energy. At the Ute Tribal 31-03 location, all mineral owners, surface owners and operators located within the AOR ¼ mile radius have been notified of the submitted EPA application to convert to injection. Attachment No. 9 is the Affidavit of Notification to all owners.

- (11) Petroglyph requests a maximum surface injection pressure of **1801psi**. The EPA Area Permit No. UT20736-00000 uses the formula:

$$P_m = (0.88\text{psi}/\text{ft} - 0.43\text{psi}/\text{ft}(S_g)) D$$

Where:

P_m = Maximum surface injection pressure

0.88psi/ft = Fracture gradient

D = Top perforation depth

0.43psi/ft = Hydrostatic pressure/hydraulic head

S_g = Specific gravity of injection fluid

For the Ute Tribal 31-03:

$$\mathbf{1801\text{psi} = (0.88\text{psi}/\text{ft} - 0.43(1.00)) 4002\text{ft}}$$

- (12) Three wellbore diagrams for the Ute Tribal 31-03 are in Attachment No. 10. One diagram is for production, one for injection, and one for Plug & Abandonment (P&A).

- (13) The P&A procedure for this well is shown in Attachment No. 11.

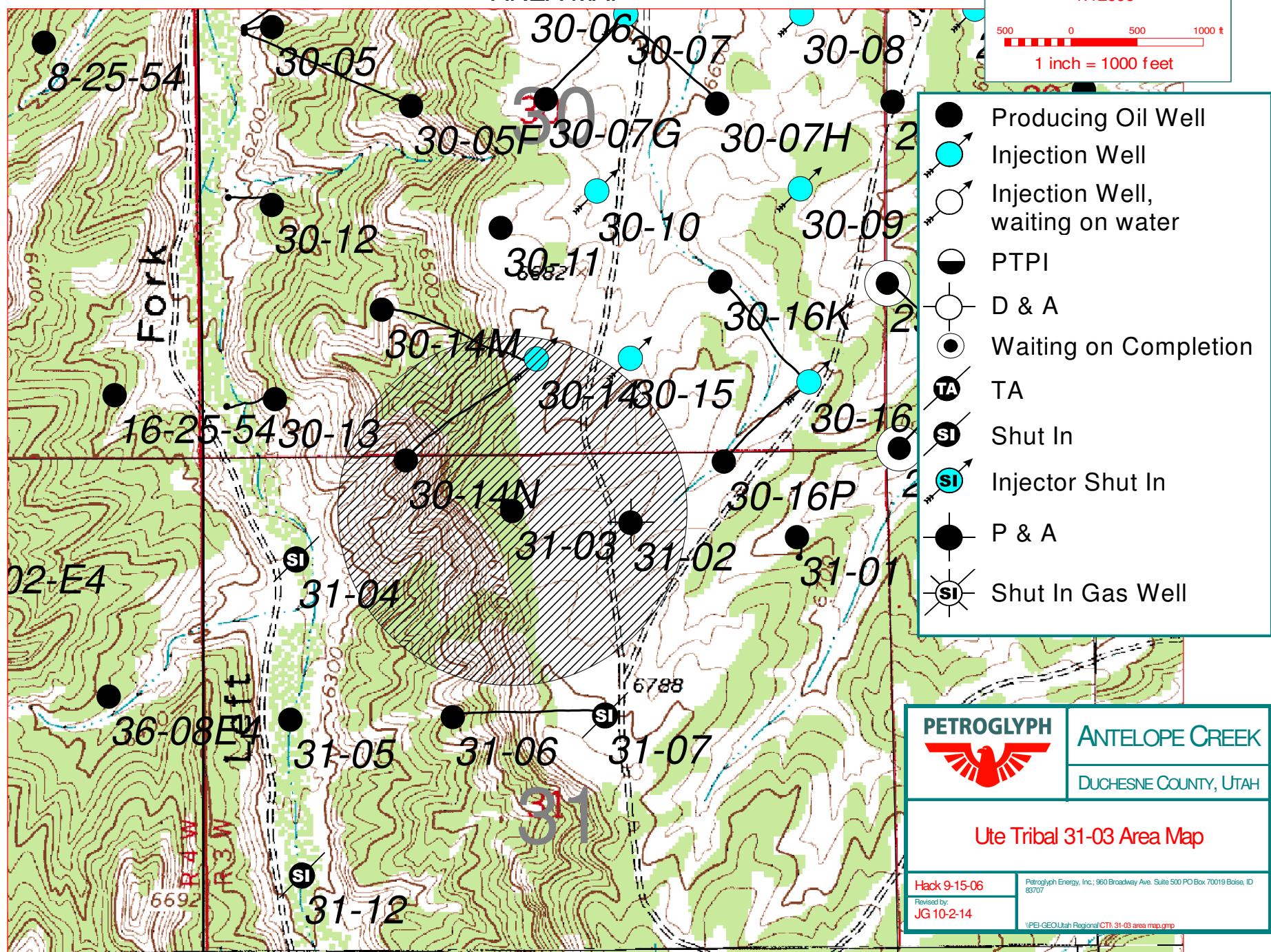
- (14) Once the draft permit is issued, Petroglyph will conduct a Mechanical Integrity Test and a static bottom-hole pressure test. The MIT procedure is contained in Attachment No. 12. The conversion work will be satisfactorily completed and submitted to the EPA on Form 7520-12. A wellbore schematic will be included with this form.

- (15) Petroglyph will give proof of financial responsibility by posting a surety bond for the UIC well prior to final permit approval. A copy of this letter is contained in Attachment No. 13.
- (16) Petroglyph will install various gauges on the well so that the injection pressure and tubing/casing annulus pressure can be monitored. The well will be equipped with a flow meter with a cumulative volume recorder.

ATTACHMENT NO. 1

AREA MAP

ATTACHMENT NO. 1:
AREA MAP



ATTACHMENT NO. 2

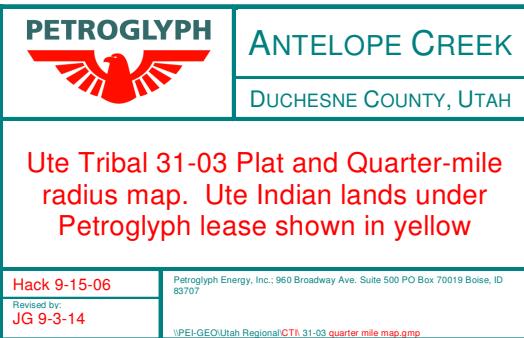
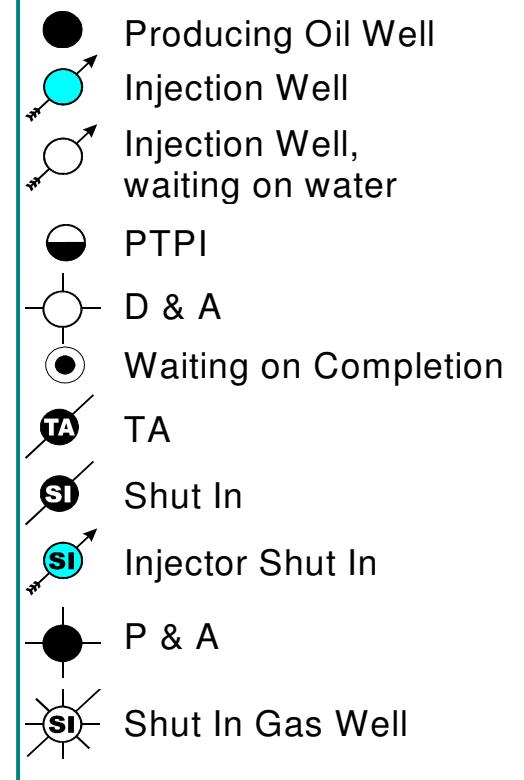
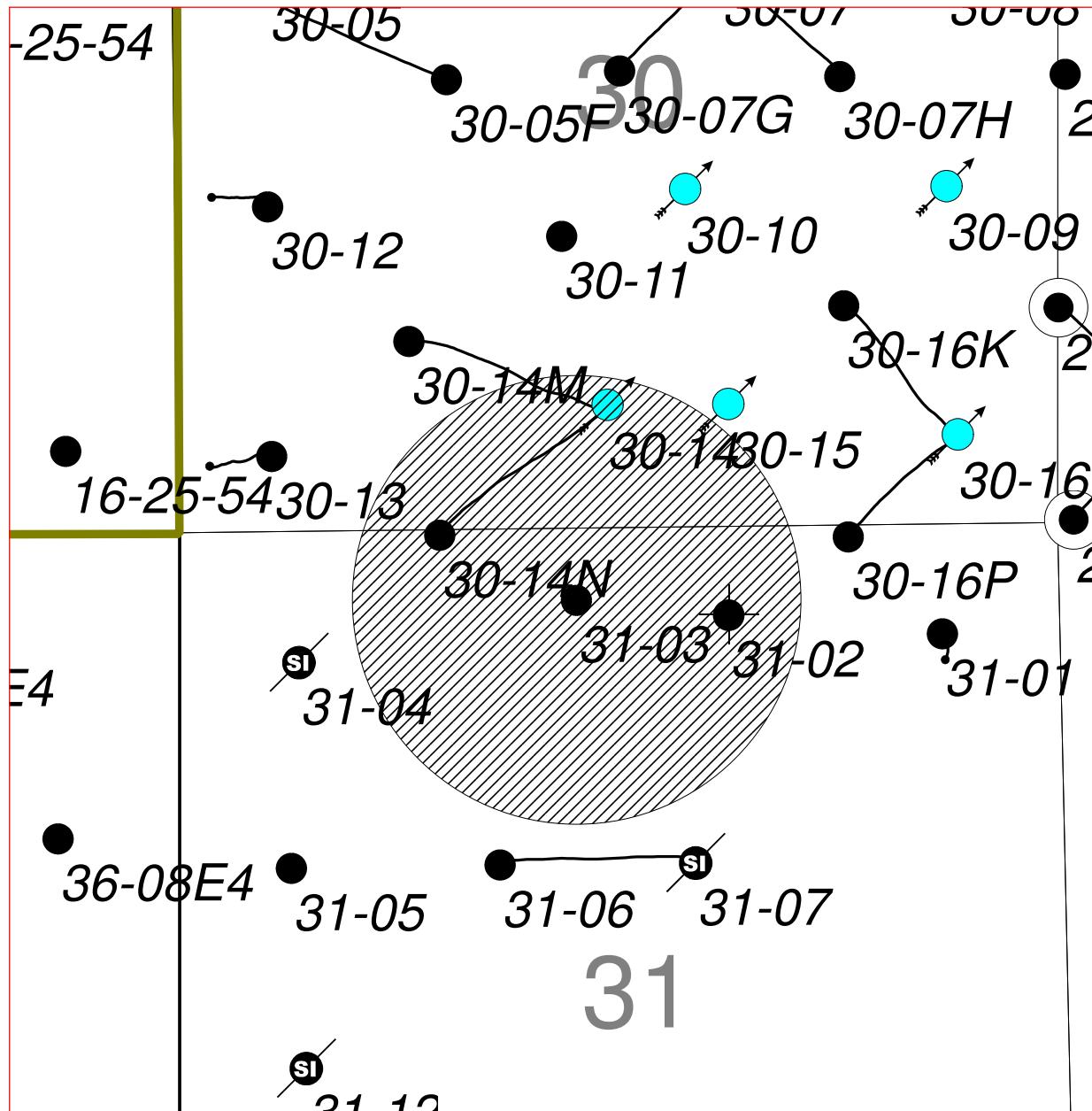
SITE MAP

RADIUS MAP OF ADJACENT WELLS

ATTACHMENT NO. 2:
SITE MAP

1:12000

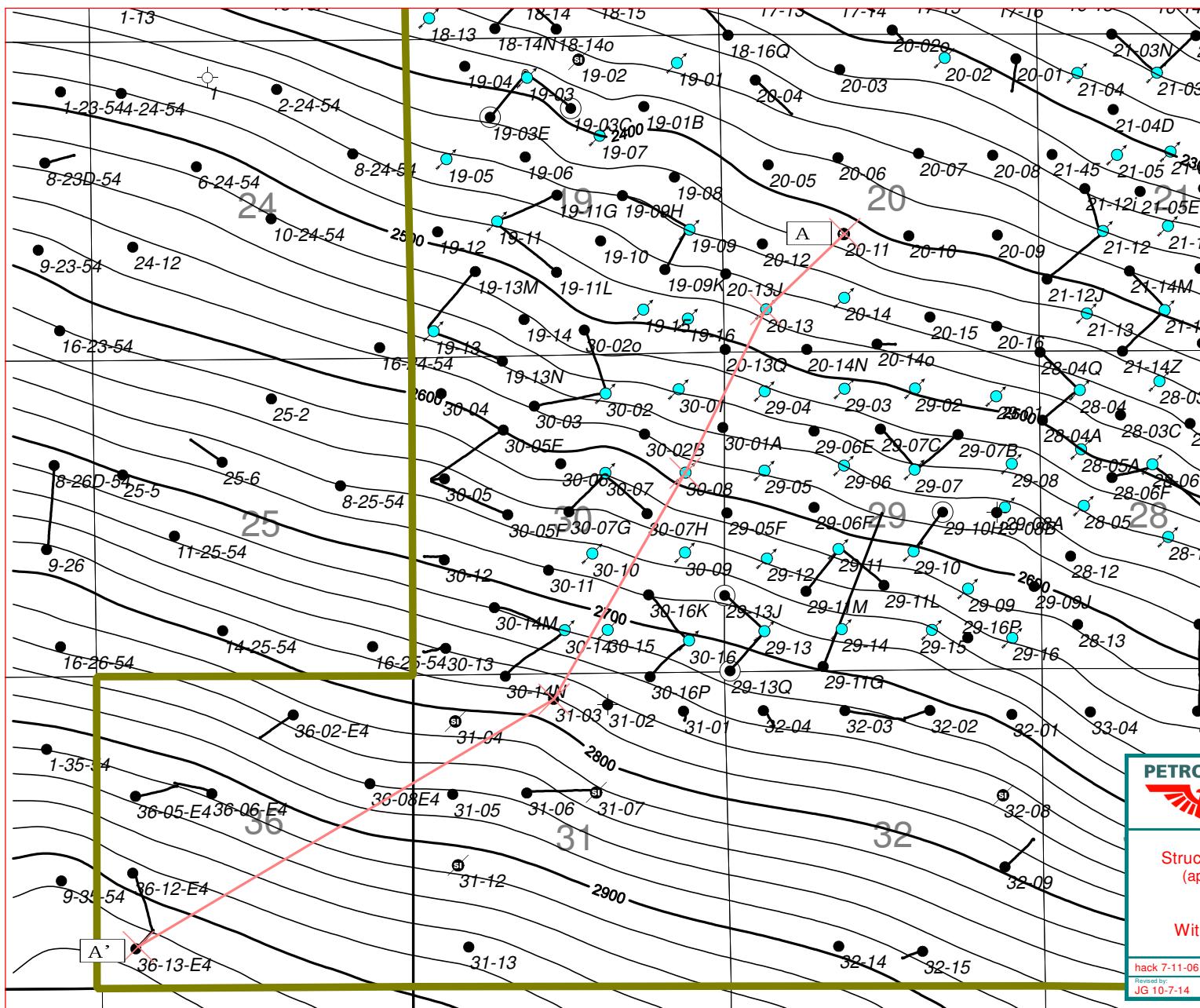
500 0 500 1000 ft
1 inch = 1000 feet



ATTACHMENT NO. 3

MAP OF THE A-LIME MARKER SURFACE

ATTACHMENT NO. 3:
Map of the "A" Lime Marker



1:30000
1000 0 1000 2000 ft
1 inch = 2500 f feet

- Producing Oil Well
- Injection Well
- Injection Well, waiting on water
- PTPI
- D & A
- Waiting on Completion
- TA
- SI
- Injector Shut In
- P & A
- Shut In Gas Well



ANTELOPE CREEK

DUCHESNE COUNTY, UTAH

Structure Map of the "A" Lime Marker
(approximate top of Injection Zone)
in the Vicinity of the
Ute Tribal 31-03
With Line of Cross Section A to A'

hack 7-11-06

Revised by:

JG 10-7-14

Petroglyph Energy, Inc., 555 S. Cole Rd., Boise, ID 83709

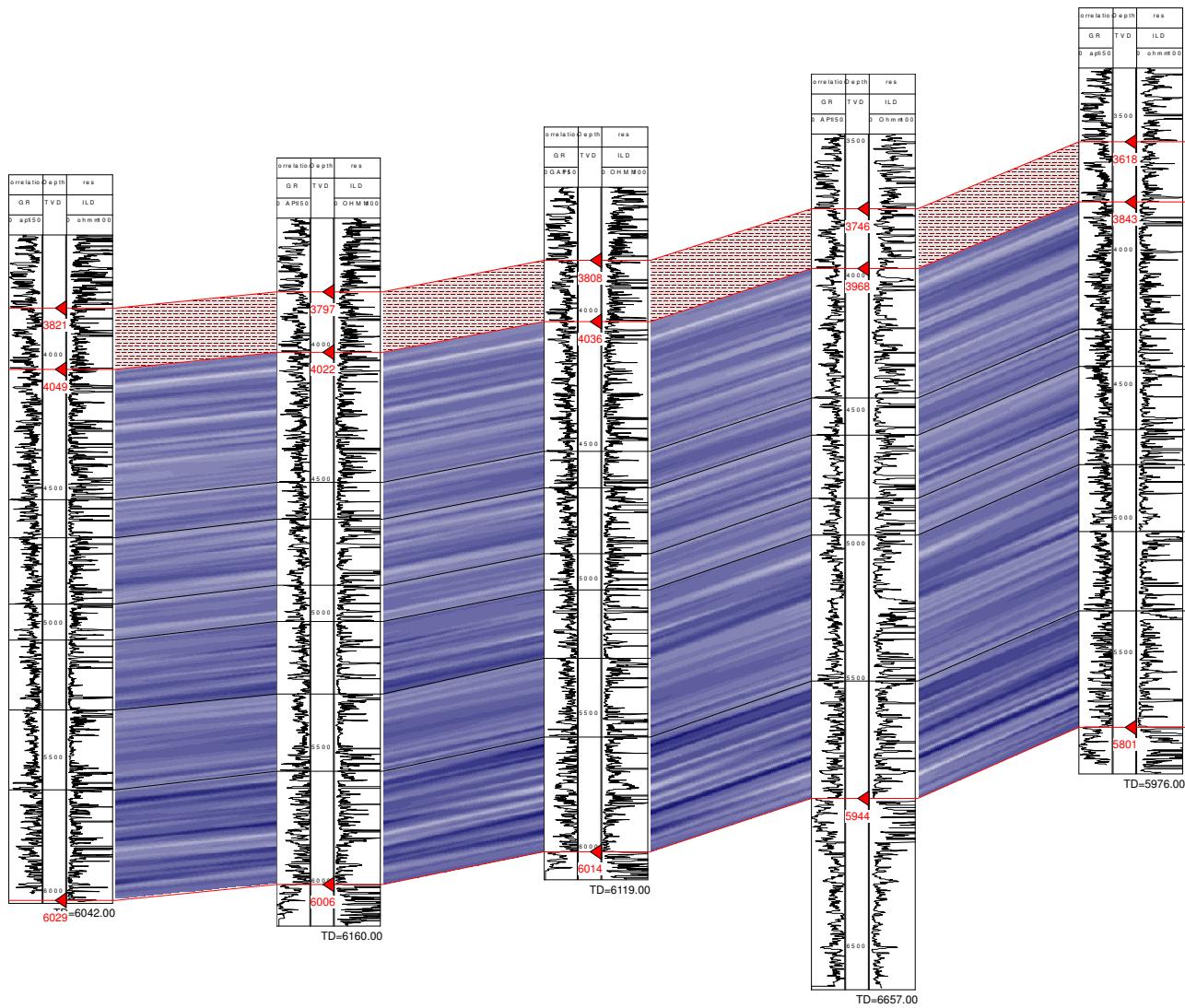
\SERV\Geo\Utah\Regional\CT\31-03 structure map.gnp

ATTACHMENT NO. 4

CROSS SECTIONS OF THE INJECTION FORMATION

Structural Cross Section A to A' in the Vicinity of Ute Tribal 31-03

43013340490000 1820 ft 43013319810000 3026 ft 43013317340000 4337 ft 43013311880000 8034 ft 43013516030000
 PETROGLYPH OPERATING COMPANY INC PETROGLYPH OPERATING COMPANY INC PETROGLYPH OPERATING COMPANY INC PETROGLYPH OPERATING COMPANY INC PETROGLYPH OPERATING COMPANY
 UTE TRIBAL 20-11 Ute Tribal 20-13 Ute Tribal 30-08 Ute Tribal 31-03 UTE TRIBAL 36-13-E4
 1959 FSL 2033 FWL 700 FSL 700 FWL 2000 FNL 650 FEL 422 FNL 2338 FWL 954 FSL 935 FWL
 TWP: 5 S - Range: 3 W - Sec. 20 TWP: 5 S - Range: 3 W - Sec. 2 TWP: 5 S - Range: 3 W - Sec. 30 TWP: 5 S - Range: 3 W - Sec. 31 TWP: 5 S - Range: 4 W - Sec. 36



ATTACHMENT NO. 5

WATER ANALYSIS

Water Analysis Report

Production Company: PETROGLYPH OPERATING CO INC - EBUS
 Well Name: UTE TRIBAL 18-08 SATELLITE, DUCHESN
 Sample Point: PLANT DISCHARGE COMPLETE
 Sample Date: 4/21/2015
 Sample ID: WA-307075

Sales Rep: James Patry
 Lab Tech: Gary Winegar

Scaling potential predicted using ScaleSoftPitzer from
 Brine Chemistry Consortium (Rice University)

Sample Specifics	
Test Date:	4/21/2015
System Temperature 1 (°F):	60.00
System Pressure 1 (psig):	14.70
System Temperature 2 (°F):	180.00
System Pressure 2 (psig):	2000.00
Calculated Density (g/ml):	1.0061
pH:	8.50
Calculated TDS (mg/L):	12805.08
CO ₂ in Gas (%):	
Dissolved CO ₂ (mg/L):	0.00
H ₂ S in Gas (%):	
H ₂ S in Water (mg/L):	0.00

Analysis @ Properties in Sample Specifics			
Cations	mg/L	Anions	mg/L
Sodium (Na):	4541.75	Chloride (Cl):	6000.00
Potassium (K):	41.78	Sulfate (SO ₄):	163.00
Magnesium (Mg):	28.63	Bicarbonate (HCO ₃):	1952.00
Calcium (Ca):	67.44	Carbonate (CO ₃):	
Strontium (Sr):	5.41	Acetic Acid (CH ₃ COO):	
Barium (Ba):	0.90	Propionic Acid (C ₂ H ₅ COO):	
Iron (Fe):	2.74	Butanoic Acid (C ₃ H ₇ COO):	
Zinc (Zn):	1.29	Isobutyric Acid ((CH ₃) ₂ CHCOO):	
Lead (Pb):	0.05	Fluoride (F):	
Ammonia NH ₃ :		Bromine (Br):	
Manganese (Mn):	0.09	Silica (SiO ₂):	

Notes:

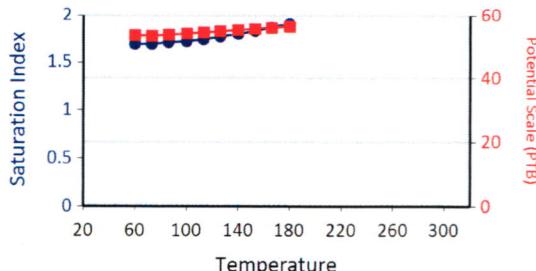
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	1.91	56.41	0.09	0.09	0.00	0.00	2.59	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166	1779	1.87	56.05	0.13	0.14	0.00	0.00	2.54	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	1558	1.83	55.66	0.19	0.19	0.00	0.00	2.49	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	1338	1.80	55.27	0.26	0.24	0.00	0.00	2.44	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	1117	1.77	54.86	0.33	0.29	0.00	0.00	2.38	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	897	1.74	54.46	0.42	0.33	0.00	0.00	2.32	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	676	1.72	54.08	0.52	0.38	0.00	0.00	2.26	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	455	1.71	53.72	0.64	0.41	0.00	0.00	2.20	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	235	1.69	53.39	0.77	0.45	0.00	0.00	2.14	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	14	1.69	53.56	0.92	0.47	0.00	0.00	2.08	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

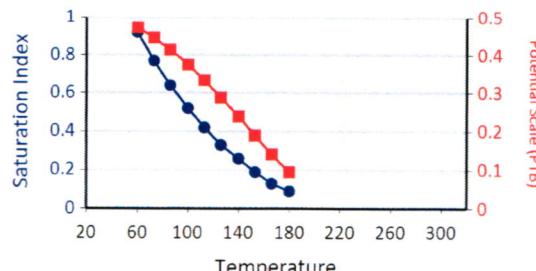
Temp (°F)	PSI	Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	0.00	0.00	0.00	0.00	0.00	0.00	2.20	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166	1779	0.00	0.00	0.00	0.00	0.00	0.00	2.09	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	1558	0.00	0.00	0.00	0.00	0.00	0.00	1.96	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	1338	0.00	0.00	0.00	0.00	0.00	0.00	1.83	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	1117	0.00	0.00	0.00	0.00	0.00	0.00	1.69	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	897	0.00	0.00	0.00	0.00	0.00	0.00	1.53	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	676	0.00	0.00	0.00	0.00	0.00	0.00	1.37	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	455	0.00	0.00	0.00	0.00	0.00	0.00	1.19	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	235	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	14	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Water Analysis Report

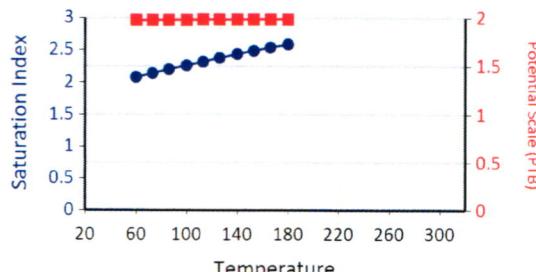
Calcium Carbonate



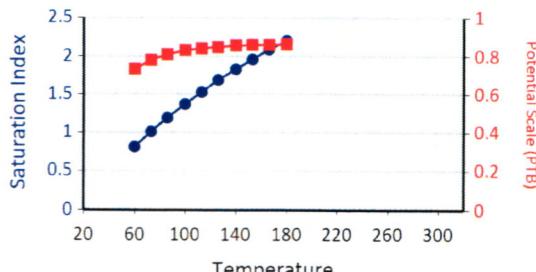
Barium Sulfate



Iron Carbonate



Zinc Carbonate



Water Analysis Report

Production Company: PETROGLYPH OPERATING CO INC - EBUS
 Well Name: UTE TRIBAL 21-11 SATELLITE, DUCHESNE
 Sample Point: PLANT DISCHARGE COMPLETE
 Sample Date: 4/21/2015
 Sample ID: WA-307071

Sales Rep: James Patry
 Lab Tech: Gary Winegar

Scaling potential predicted using ScaleSoftPitzer from
 Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics											
Test Date:	4/21/2015	Cations					mg/L		Anions				
System Temperature 1 (°F):	60.00	Sodium (Na):					5585.76		Chloride (Cl):			7000.00	
System Pressure 1 (psig):	14.70	Potassium (K):					55.43		Sulfate (SO ₄):			277.00	
System Temperature 2 (°F):	180.00	Magnesium (Mg):					10.62		Bicarbonate (HCO ₃):			2684.00	
System Pressure 2 (psig):	2000.00	Calcium (Ca):					30.52		Carbonate (CO ₃):				
Calculated Density (g/ml):	1.0081	Strontium (Sr):					6.47		Acetic Acid (CH ₃ COO):				
pH:	8.70	Barium (Ba):					1.02		Propionic Acid (C ₃ H ₅ COO):				
Calculated TDS (mg/L):	15659.01	Iron (Fe):					1.09		Butanoic Acid (C ₃ H ₇ COO):				
CO ₂ in Gas (%):		Zinc (Zn):					6.88		Isobutyric Acid ((CH ₃) ₂ CHCOO):				
Dissolved CO ₂ (mg/L):	0.00	Lead (Pb):					0.08		Fluoride (F):				
H ₂ S in Gas (%):		Ammonia NH ₃ :							Bromine (Br):				
H ₂ S in Water (mg/L):	35.00	Manganese (Mn):					0.14		Silica (SiO ₂):				

Notes:

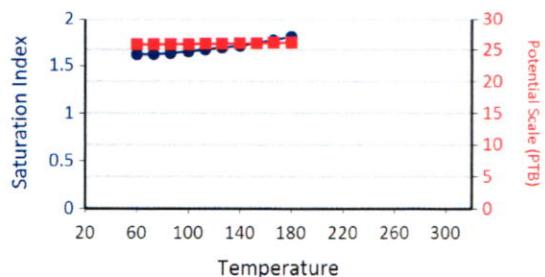
(PTB = Pounds per Thousand Barrels)

Calcium Carbonate				Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ -2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	1.81	26.18	0.28	0.29	3.60	0.60	2.44	0.79	0.00	0.00	0.00	0.00	0.00	0.00	11.37	3.59
166	1779	1.77	26.13	0.33	0.32	3.61	0.60	2.40	0.79	0.00	0.00	0.00	0.00	0.00	0.00	11.52	3.59
153	1558	1.74	26.09	0.39	0.36	3.63	0.60	2.35	0.79	0.00	0.00	0.00	0.00	0.00	0.00	11.68	3.59
140	1338	1.71	26.05	0.45	0.39	3.67	0.60	2.30	0.79	0.00	0.00	0.00	0.00	0.00	0.00	11.86	3.59
126	1117	1.69	26.00	0.53	0.43	3.72	0.60	2.25	0.79	0.00	0.00	0.00	0.00	0.00	0.00	12.05	3.59
113	897	1.67	25.97	0.62	0.46	3.79	0.60	2.20	0.79	0.00	0.00	0.00	0.00	0.00	0.00	12.27	3.59
100	676	1.65	25.93	0.72	0.49	3.87	0.60	2.14	0.79	0.00	0.00	0.00	0.00	0.00	0.00	12.50	3.59
86	455	1.63	25.91	0.84	0.52	3.97	0.60	2.08	0.79	0.00	0.00	0.00	0.00	0.00	0.00	12.76	3.59
73	235	1.62	25.88	0.97	0.54	4.09	0.60	2.02	0.79	0.00	0.00	0.00	0.00	0.00	0.00	13.04	3.59
60	14	1.62	25.87	1.12	0.56	4.23	0.60	1.96	0.79	0.00	0.00	0.00	0.00	0.00	0.00	13.34	3.59

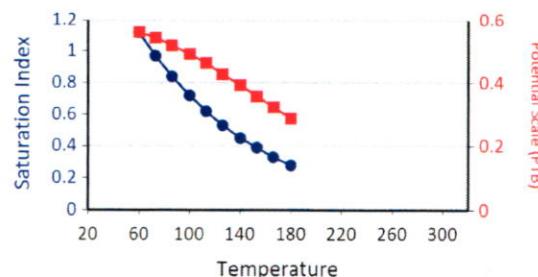
Hemihydrate CaSO ₄ *0.5H ₂ O				Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	0.00	0.00	0.00	0.00	0.00	0.00	3.15	4.62	10.72	0.03	0.00	0.00	0.00	0.00	0.00	0.00
166	1779	0.00	0.00	0.00	0.00	0.00	0.00	3.04	4.62	10.97	0.03	0.00	0.00	0.00	0.00	0.00	0.00
153	1558	0.00	0.00	0.00	0.00	0.00	0.00	2.92	4.62	11.24	0.03	0.00	0.00	0.00	0.00	0.00	0.00
140	1338	0.00	0.00	0.00	0.00	0.00	0.00	2.79	4.62	11.54	0.03	0.00	0.00	0.00	0.00	0.00	0.00
126	1117	0.00	0.00	0.00	0.00	0.00	0.00	2.65	4.62	11.86	0.03	0.00	0.00	0.00	0.00	0.00	0.00
113	897	0.00	0.00	0.00	0.00	0.00	0.00	2.50	4.61	12.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00
100	676	0.00	0.00	0.00	0.00	0.00	0.00	2.34	4.61	12.60	0.03	0.00	0.00	0.00	0.00	0.00	0.00
86	455	0.00	0.00	0.00	0.00	0.00	0.00	2.17	4.60	13.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00
73	235	0.00	0.00	0.00	0.00	0.00	0.00	1.99	4.58	13.46	0.03	0.00	0.00	0.00	0.00	0.00	0.00
60	14	0.00	0.00	0.00	0.00	0.00	0.00	1.79	4.55	13.95	0.03	0.00	0.00	0.00	0.00	0.00	0.00

Water Analysis Report

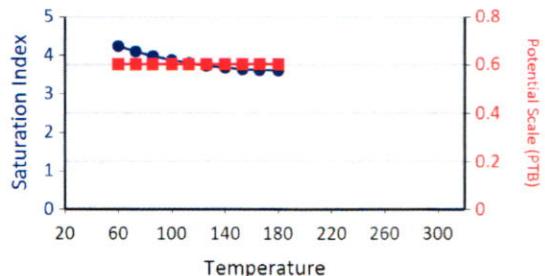
Calcium Carbonate



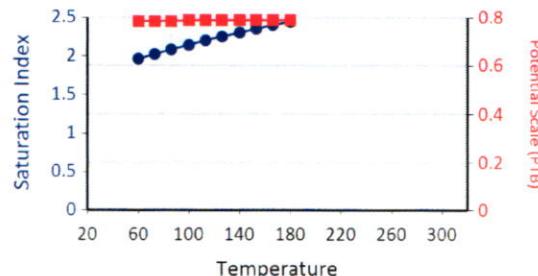
Barium Sulfate



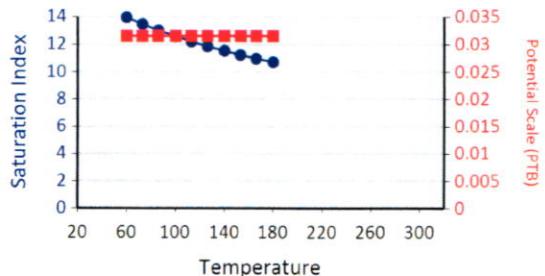
Iron Sulfide



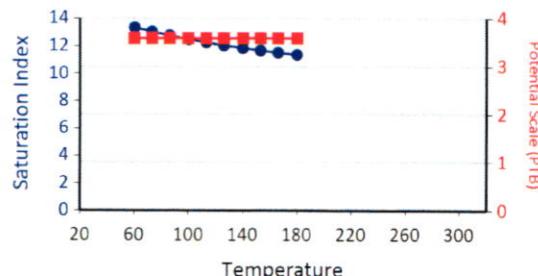
Iron Carbonate



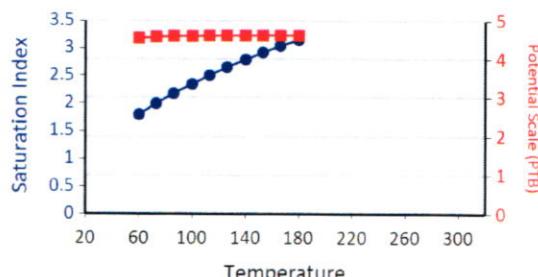
Lead Sulfide



Zinc Sulfide



Zinc Carbonate



Water Analysis Report

Production Company: PETROGLYPH OPERATING CO INC - EBUS
 Well Name: UTE TRIBAL 34-12D3 SATELLITE, DUCHE
 Sample Point: PLANT DISCHARGE
 Sample Date: 4/21/2015
 Sample ID: WA-307067

Sales Rep: James Patry
 Lab Tech: Gary Winegar

Scaling potential predicted using ScaleSoftPitzer from
 Brine Chemistry Consortium (Rice University)

Sample Specifics	
Test Date:	4/21/2015
System Temperature 1 (°F):	60.00
System Pressure 1 (psig):	14.70
System Temperature 2 (°F):	180.00
System Pressure 2 (psig):	2000.00
Calculated Density (g/ml):	1.0073
pH:	8.50
Calculated TDS (mg/L):	14589.98
CO2 in Gas (%):	
Dissolved CO2 (mg/L):	0.00
H2S in Gas (%):	
H2S in Water (mg/L):	0.00

Analysis @ Properties in Sample Specifics			
Cations	mg/L	Anions	mg/L
Sodium (Na):	5277.36	Chloride (Cl):	7000.00
Potassium (K):	65.03	Sulfate (SO4):	0.00
Magnesium (Mg):	7.80	Bicarbonate (HCO3):	2196.00
Calcium (Ca):	24.60	Carbonate (CO3):	
Strontium (Sr):	5.20	Acetic Acid (CH3COO):	
Barium (Ba):	12.37	Propionic Acid (C2H5COO):	
Iron (Fe):	0.34	Butanoic Acid (C3H7COO):	
Zinc (Zn):	1.16	Isobutyric Acid ((CH3)2CHCOO):	
Lead (Pb):	0.04	Fluoride (F):	
Ammonia NH3:		Bromine (Br):	
Manganese (Mn):	0.08	Silica (SiO2):	

Notes:

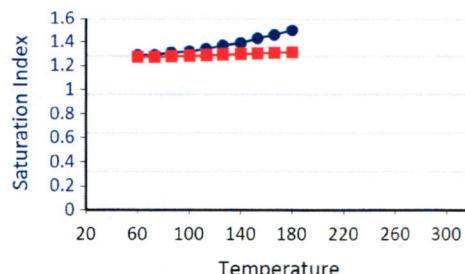
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	1.50	20.58	0.00	0.00	0.00	0.00	1.72	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166	1779	1.46	20.48	0.00	0.00	0.00	0.00	1.67	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	1558	1.43	20.39	0.00	0.00	0.00	0.00	1.63	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	1338	1.39	20.30	0.00	0.00	0.00	0.00	1.57	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	1117	1.37	20.21	0.00	0.00	0.00	0.00	1.52	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	897	1.34	20.13	0.00	0.00	0.00	0.00	1.46	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	676	1.32	20.05	0.00	0.00	0.00	0.00	1.40	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	455	1.31	19.99	0.00	0.00	0.00	0.00	1.34	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	235	1.29	19.93	0.00	0.00	0.00	0.00	1.28	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	14	1.29	19.93	0.00	0.00	0.00	0.00	1.22	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

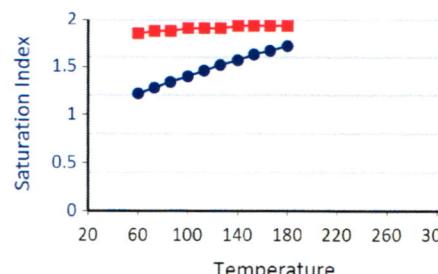
Temp (°F)	PSI	Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180	2000	0.00	0.00	0.00	0.00	0.00	0.00	2.16	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166	1779	0.00	0.00	0.00	0.00	0.00	0.00	2.05	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153	1558	0.00	0.00	0.00	0.00	0.00	0.00	1.93	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	1338	0.00	0.00	0.00	0.00	0.00	0.00	1.80	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126	1117	0.00	0.00	0.00	0.00	0.00	0.00	1.65	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	897	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	676	0.00	0.00	0.00	0.00	0.00	0.00	1.34	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	455	0.00	0.00	0.00	0.00	0.00	0.00	1.17	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73	235	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60	14	0.00	0.00	0.00	0.00	0.00	0.79	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Water Analysis Report

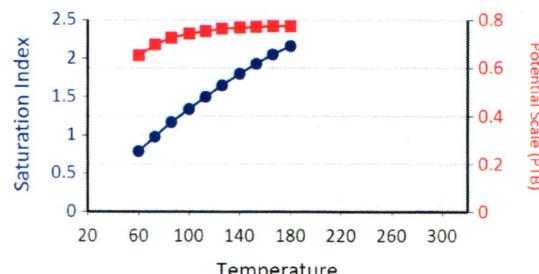
Calcium Carbonate



Iron Carbonate



Zinc Carbonate



Water Analysis Report

Production Company: PETROGLYPH OPERATING CO INC - EBUS

Well Name: PETROGLYPH U.T. 30-15, DUCHESNE

Sample Point: WELLHEAD

Sample Date: 1/7/2015

Sample ID: WA-298186

Sales Rep: James Patry

Lab Tech: Gary Winegar

Scaling potential predicted using ScaleSoftPitzer from
Brine Chemistry Consortium (Rice University)**Sample Specifics**

Test Date:	1/21/2015
System Temperature 1 (°F):	160
System Pressure 1 (psig):	1300
System Temperature 2 (°F):	80
System Pressure 2 (psig):	15
Calculated Density (g/ml):	1.0037
pH:	8.50
Calculated TDS (mg/L):	10160.63
CO2 in Gas (%):	
Dissolved CO2 (mg/L):	0.00
H2S in Gas (%):	
H2S in Water (mg/L):	35.00

Analysis @ Properties in Sample Specifics

Cations	mg/L	Anions	mg/L
Sodium (Na):	2313.15	Chloride (Cl):	5000.00
Potassium (K):	35.31	Sulfate (SO4):	229.00
Magnesium (Mg):	37.30	Bicarbonate (HCO3):	2440.00
Calcium (Ca):	60.65	Carbonate (CO3):	
Strontium (Sr):	4.95	Acetic Acid (CH3COO):	
Barium (Ba):	7.32	Propionic Acid (C2H5COO):	
Iron (Fe):	3.27	Butanoic Acid (C3H7COO):	
Zinc (Zn):	3.04	Isobutyric Acid ((CH3)2CHCOO):	
Lead (Pb):	0.21	Fluoride (F):	
Ammonia NH3:		Bromine (Br):	
Manganese (Mn):	0.11	Silica (SiO2):	26.32

Notes:

B=5.14 Al=0 Li=1.24

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
80.00	14.00	1.87	51.16	1.90	4.30	4.46	1.81	2.51	2.37	0.00	0.00	0.00	0.00	0.00	0.00	12.48	1.59
88.00	157.00	1.88	51.07	1.82	4.29	4.38	1.81	2.55	2.37	0.00	0.00	0.00	0.00	0.00	0.00	12.30	1.59
97.00	300.00	1.89	51.16	1.74	4.28	4.31	1.81	2.59	2.37	0.00	0.00	0.00	0.00	0.00	0.00	12.13	1.59
106.00	443.00	1.90	51.25	1.67	4.27	4.26	1.81	2.63	2.37	0.00	0.00	0.00	0.00	0.00	0.00	11.97	1.59
115.00	585.00	1.92	51.34	1.60	4.25	4.21	1.81	2.67	2.37	0.00	0.00	0.00	0.00	0.00	0.00	11.83	1.59
124.00	728.00	1.94	51.44	1.54	4.23	4.17	1.81	2.72	2.37	0.00	0.00	0.00	0.00	0.00	0.00	11.69	1.59
133.00	871.00	1.96	51.54	1.49	4.22	4.14	1.81	2.76	2.37	0.00	0.00	0.00	0.00	0.00	0.00	11.56	1.59
142.00	1014.00	1.98	51.65	1.44	4.20	4.12	1.81	2.80	2.37	0.00	0.00	0.00	0.00	0.00	0.00	11.44	1.59
151.00	1157.00	2.01	51.75	1.40	4.19	4.10	1.81	2.84	2.37	0.00	0.00	0.00	0.00	0.00	0.00	11.33	1.59
160.00	1300.00	2.04	51.85	1.36	4.17	4.09	1.81	2.87	2.38	0.00	0.00	0.00	0.00	0.00	0.00	11.22	1.59

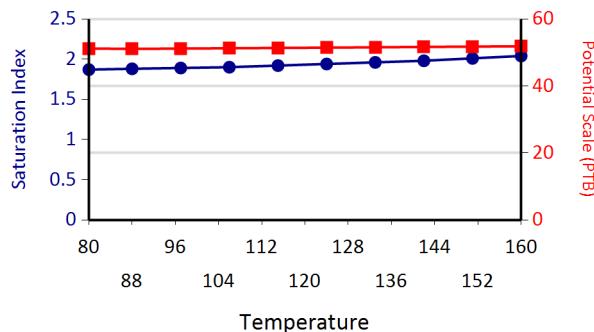
		Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
80.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.69	2.00	13.59	0.08	2.89	22.53	1.43	10.61	8.58	2.54
88.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.81	2.01	13.30	0.08	3.18	23.70	1.57	11.20	8.70	2.54
97.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.92	2.02	13.02	0.08	3.54	25.43	1.76	12.03	8.90	2.54
106.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	2.03	12.77	0.08	3.91	26.97	1.95	12.79	9.11	2.54
115.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	2.15	2.03	12.53	0.08	4.28	28.29	2.15	13.47	9.32	2.54
124.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	2.03	12.30	0.08	4.65	29.36	2.35	14.07	9.55	2.54
133.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	2.04	12.08	0.08	5.03	30.18	2.55	14.58	9.78	2.54
142.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	2.45	2.04	11.88	0.08	5.41	30.78	2.76	15.00	10.02	2.54
151.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	2.54	2.04	11.68	0.08	5.79	31.19	2.97	15.36	10.26	2.54
160.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	2.63	2.04	11.50	0.08	6.17	31.46	3.18	15.64	10.51	2.54

Water Analysis Report

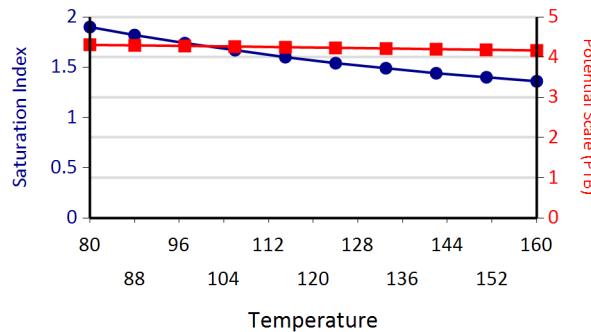
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

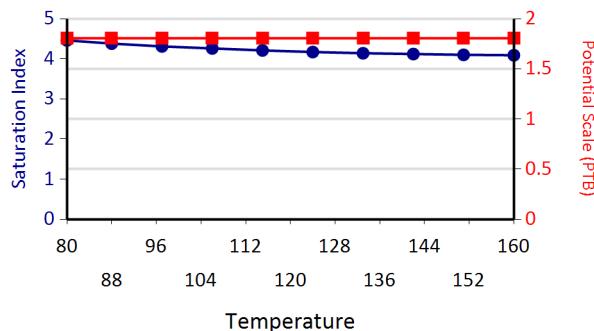
Calcium Carbonate



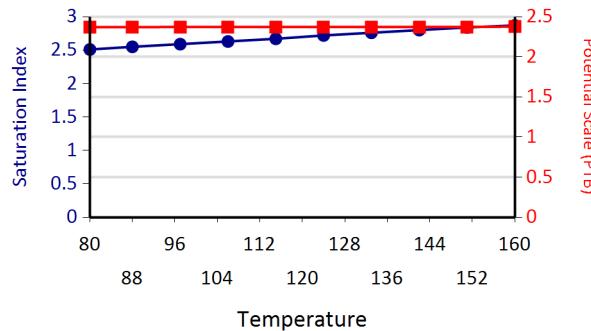
Barium Sulfate



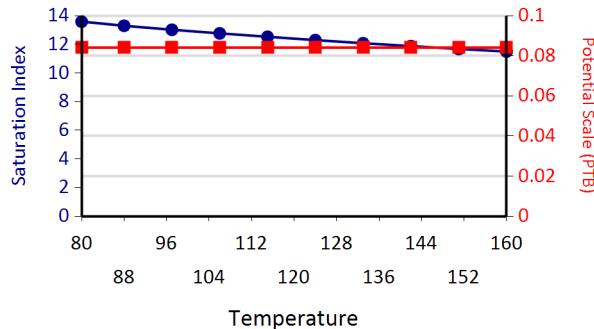
Iron Sulfide



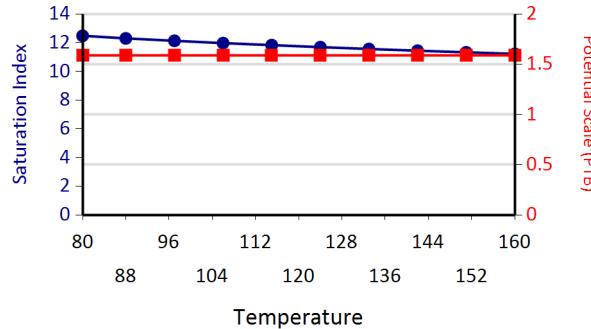
Iron Carbonate



Lead Sulfide

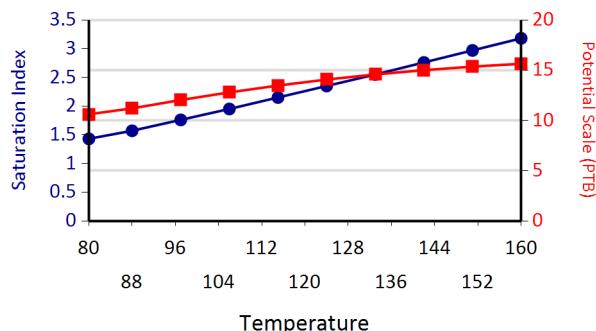


Zinc Sulfide

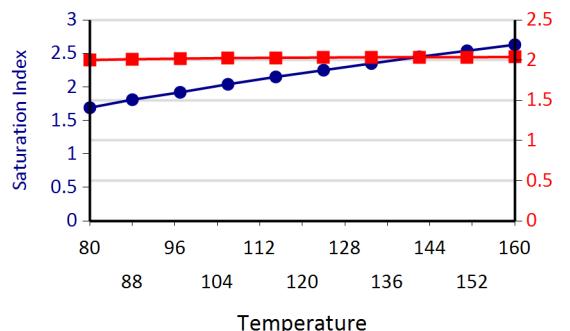


Water Analysis Report

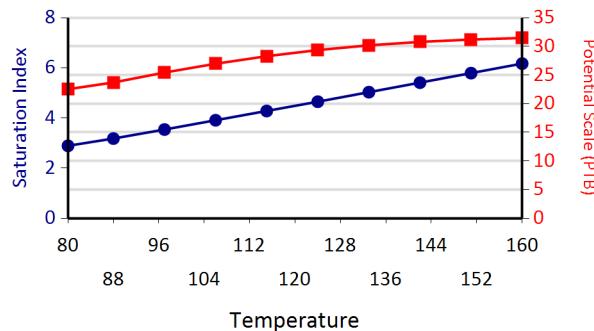
Ca Mg Silicate



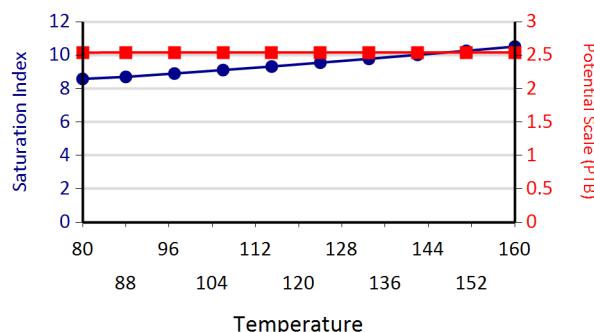
Zinc Carbonate



Mg Silicate



Fe Silicate



ATTACHMENT NO. 6

COMPLETION DATA FOR ALL WELLS IN THE AOR

Well Completion Data

Ute Tribal 31-03

Well	Surface Casing				Production Casing			
	Size (inches)	Depth (ft KB)	Cement Amount (sx)	Cement Top	Size (inches)	Depth (ft KB)	Cement Amount (sx)	Estimated Cement Top
Ute Tribal 31-03	8-5/8	403	250	surface	5-1/2	6000	1300	2520'
Ute Tribal 30-14	8-5/8	272	165	surface	5-1/2	6005	640	surface
Ute Tribal 30-14N	8-5/8	430	270	surface	5-1/2	6347	915	surface
Ute Tribal 31-02	8-5/8	397	350	surface	5-1/2	6651	1450	surface

ATTACHMENT NO. 7

CBL FOR THE UIC WELL

POMRENKE

Acoustic Bond Log VDL

FILE NO.	COMPANY COORS ENERGY COMPANY	
	WELL UTE TRIBAL #2-31	
RECEIVED		
'AUG 3 1987	COUNTY DUCHESENE	STATE UTAH
DIVISION OF OIL GAS & MINING		LOCATION NE/4 - NW/4 ELEV. 6738
	SEC 31 TWP 5 S RGE 3 W	Other Services GAMMA RAY DELTA TIME CCL
Permanent Datum KELLY BUSHING	Log Measured from KELLY BUSHING	Ele. 6738 6751.5 6738
Drilling Measured from		
Date 7-28-87	CSG. RECORD	Surface
Run No. ONE	Size	Protection
Depth-Driller 6657	Wt./Ft.	Production
Depth-Logger 5942	Grade	Liner
Bottom Logged Int. 5940	Type Joint	
Top Logged Int. 2200	Top	
Fl. Measured 3700	Bottom	
Type Fluid in Csg. WATER	PRIMARY CEMENTING DATA	
Density of Fluid -----	Type Cement	
Fluid Level 650	Vol. of Cement	
Max. Temp. Deg. F. -----	Additive	
Tool Series No. SIE	% Additive	
Tool Diam. 3 1/4"	Retarder	
Standoff Size CENTERED	% Retarder	
Logging Speed 30 FPM	Slurry Wt.	
R/A Log Type SCINT.	Water Loss	
T.C. 2	Drig Mud Type	
Sens. Setting 200	Drig Mud Wt.	
PRIMARY CEMENTING PROCEDURE		
API Units/Div.	Preceding Fluid	
Truck or Unit No. 300	Started Pumping	
Location ROOSEVELT	Plug on Bottom	Vol. Bbls.
Op. Rig Time 4 HR.	Pres. Released	Returns: Full Partial None
Recorded by WISE	Started Bond Log	Pipe Rot. During Pumping: Yes No
Witnessed by MR. SIMON TUN	Finished Bond Log	Pipe Rot. After Pluggedown: Yes No

FOLD HERE

REMARKS REPEAT SECTION LOGGED UNDER 0# PSI SURFACE PRESSURE.

LOG RAN UNDER 2500# PSI SURFACE PRESSURE.

WELL PRESSURE BLED OFF AT APPROXIMATELY 2500' DUE TO EQUIPMENT FAILURE.

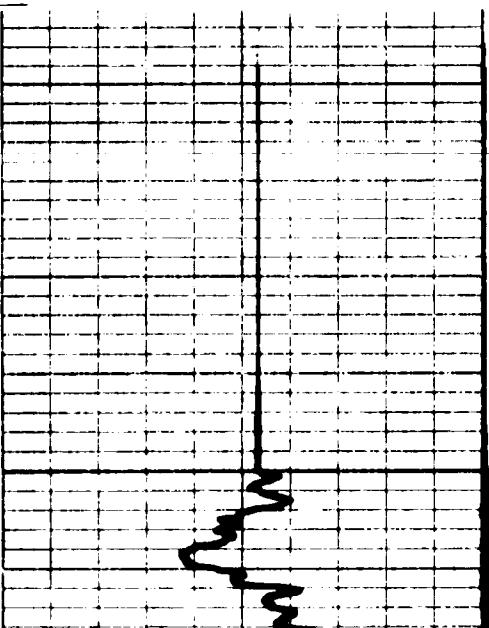
SQUEEZE JOB DETAIL				Centralizer Depths	Scratcher Depths
Squeeze No.	1	2	3	4	
Date					
Depth Interval					
Type Cement					
Vol. of Cement					
Additive					
% Additive					
Retarder					

% Retarder	
Slurry Wt.	
Preceding Fluid	
Vol. Preceding Fluid	
Breakdown Pressure	
Max. Pres. — Stage 1	
" " " 2	
" " " 3	
Final Max. Pressure	
Time Brkdn. (hr.-date)	
Pumping Stopped	
Pres. Released	
Started Bond Log	
Finished Bond Log	

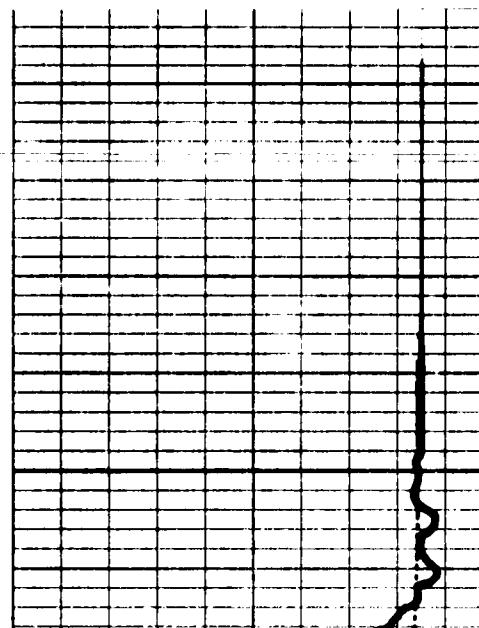
Pressure read at: Surface _____ Bottom Hole _____

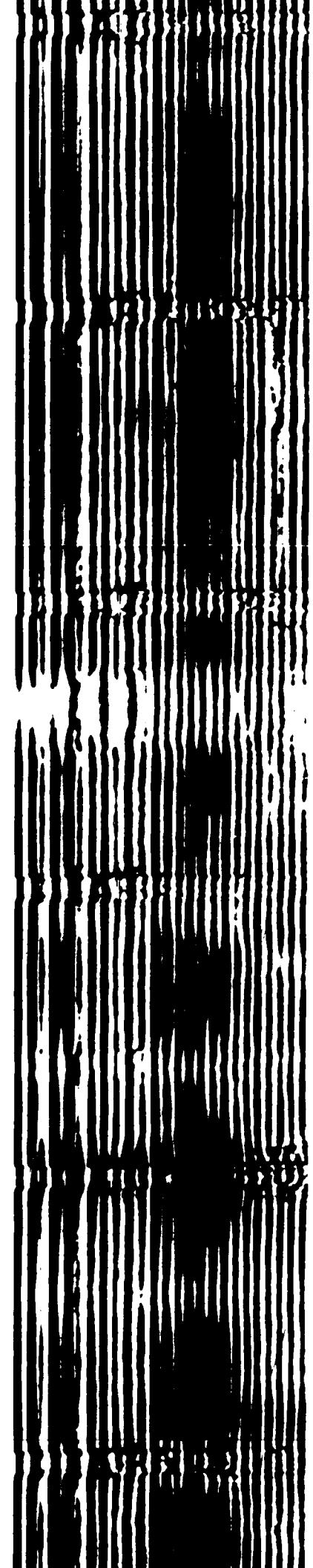
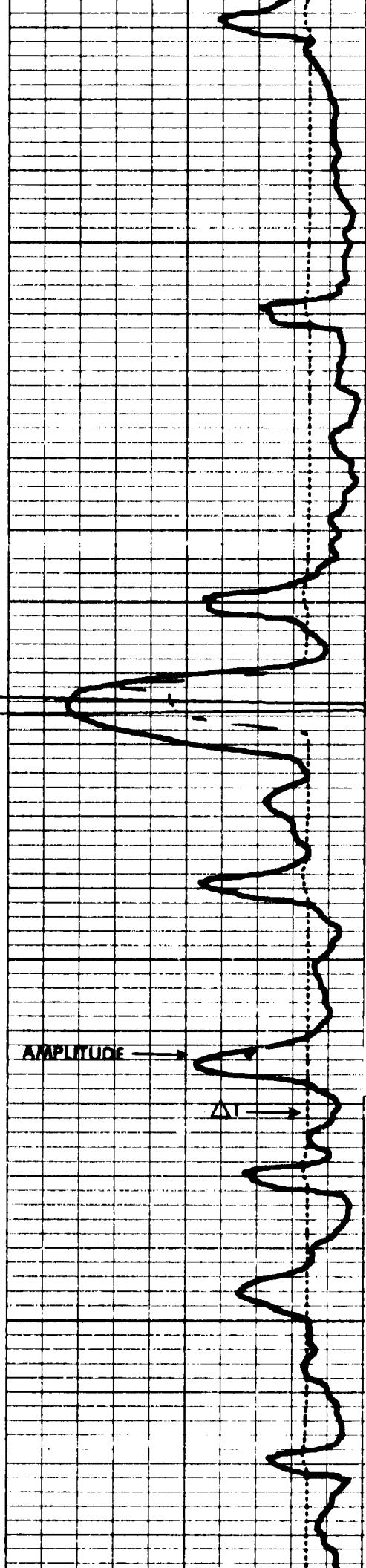
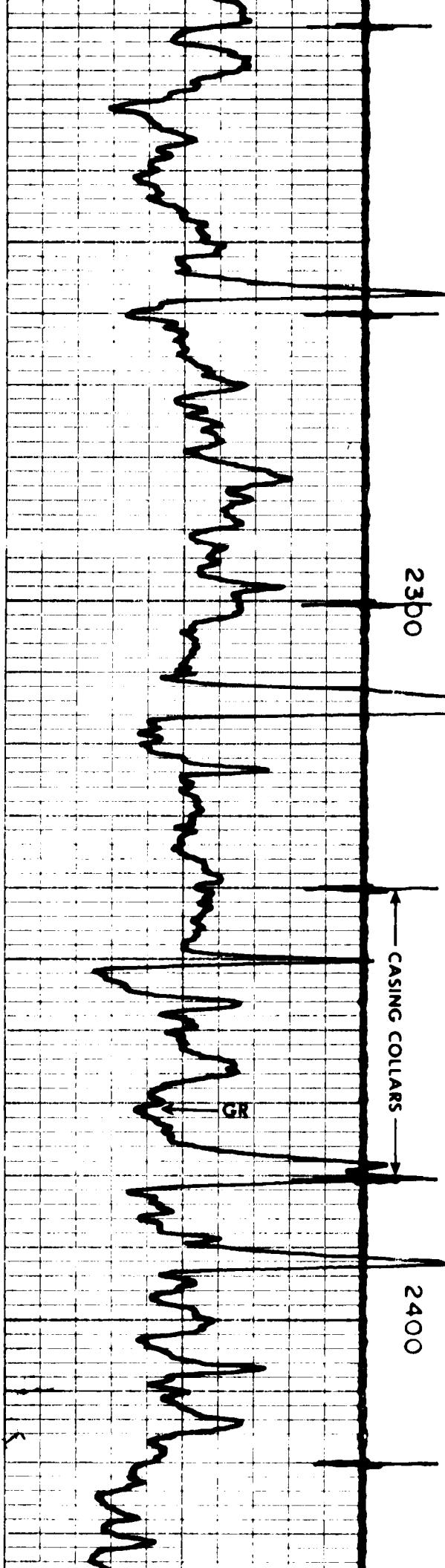
SEQUENCE OF CEMENT BOND LOGS		AVERAGE WELL DRIFT	
Log run following:	CBL Run	CBL Run	° from _____ to _____
Surface Casing Cement	Squeeze No. 1		_____ ° from _____ to _____
Protection Casing Cement	Squeeze No. 2		_____ ° from _____ to _____
Production Casing Cement	Squeeze No. 3		_____ ° from _____ to _____
Liner Cement	Squeeze No. 4		

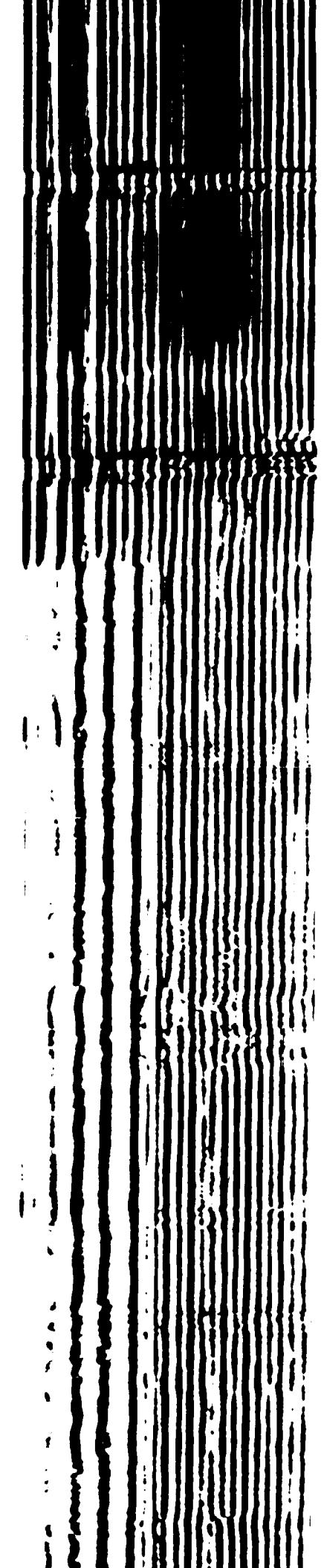
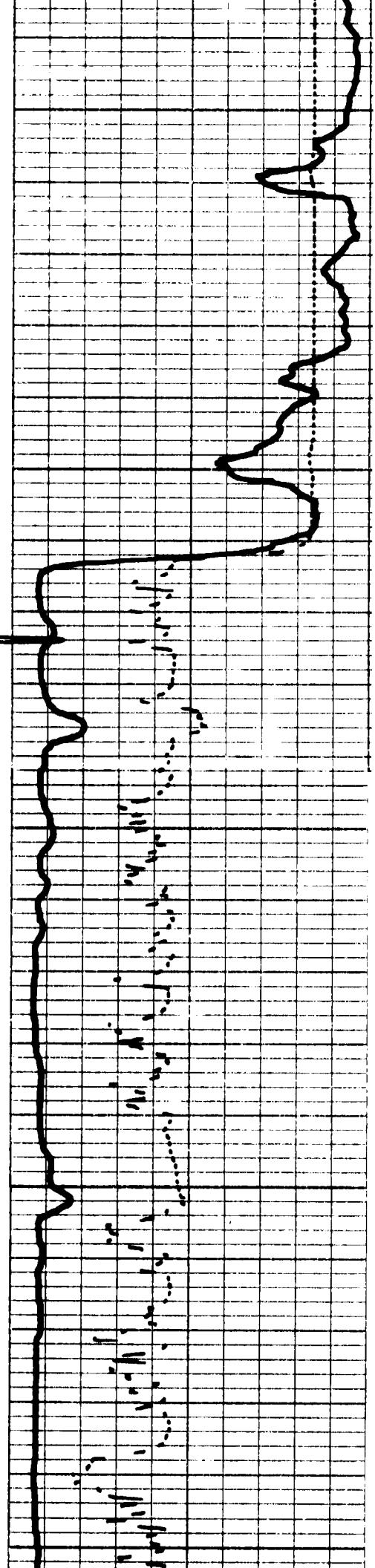
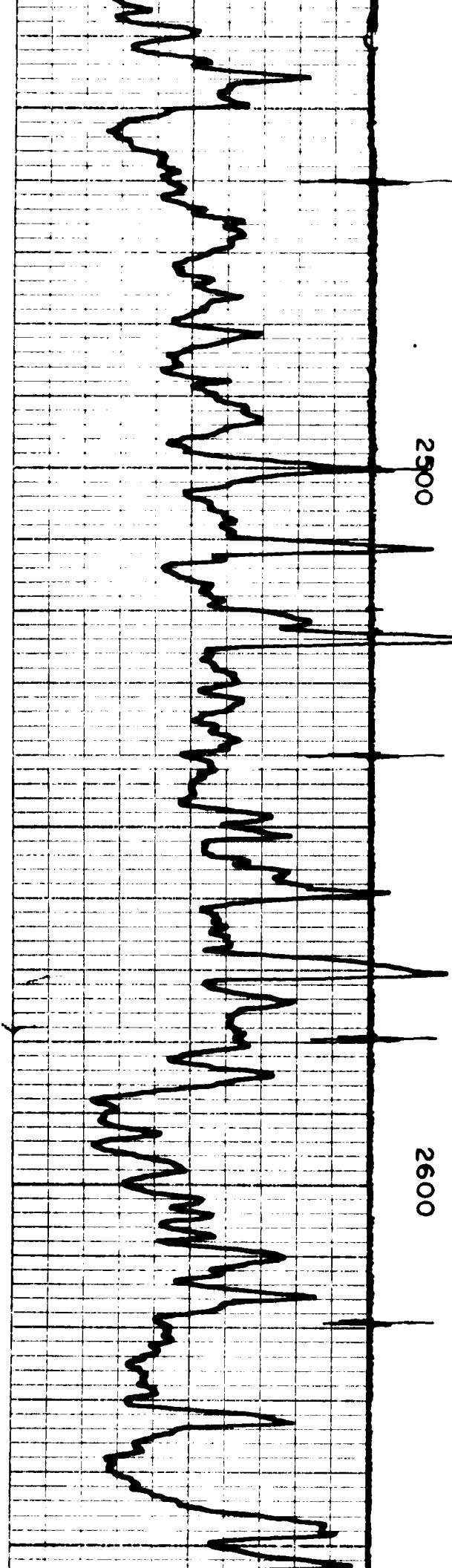
GAMMA RAY	DEPTH	COMPRESSION WAVE AMPLITUDE	VARIABLE DENSITY
RADIATION INTENSITY INCREASES →		AMPLITUDE INCREASES → I40 --- DELTA TIME --- 40 MICROSECONDS	
			100 1100 MICROSECONDS

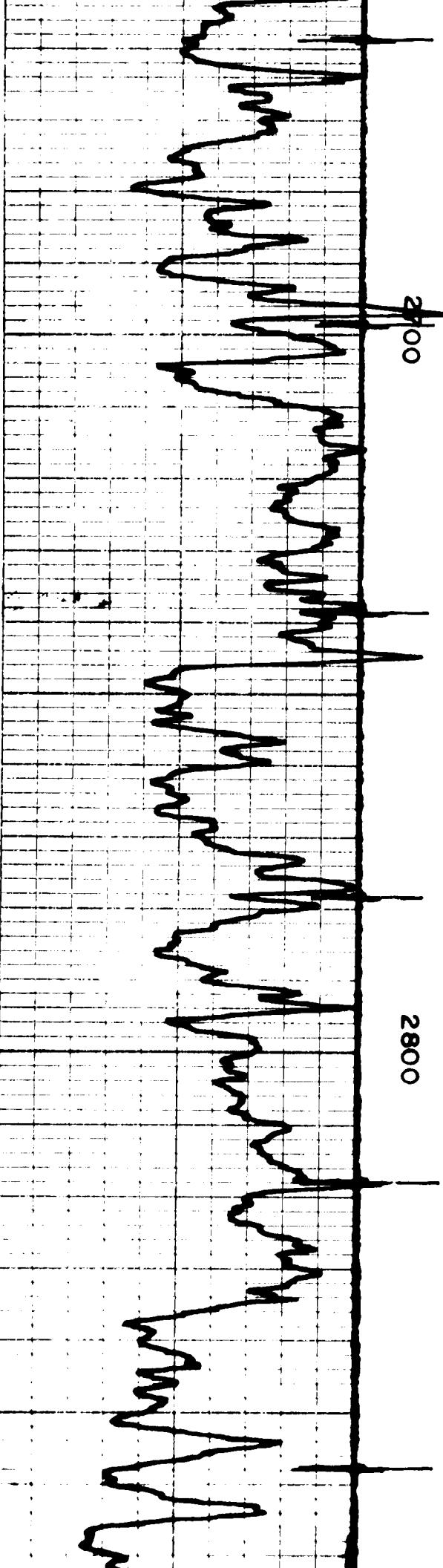


2200



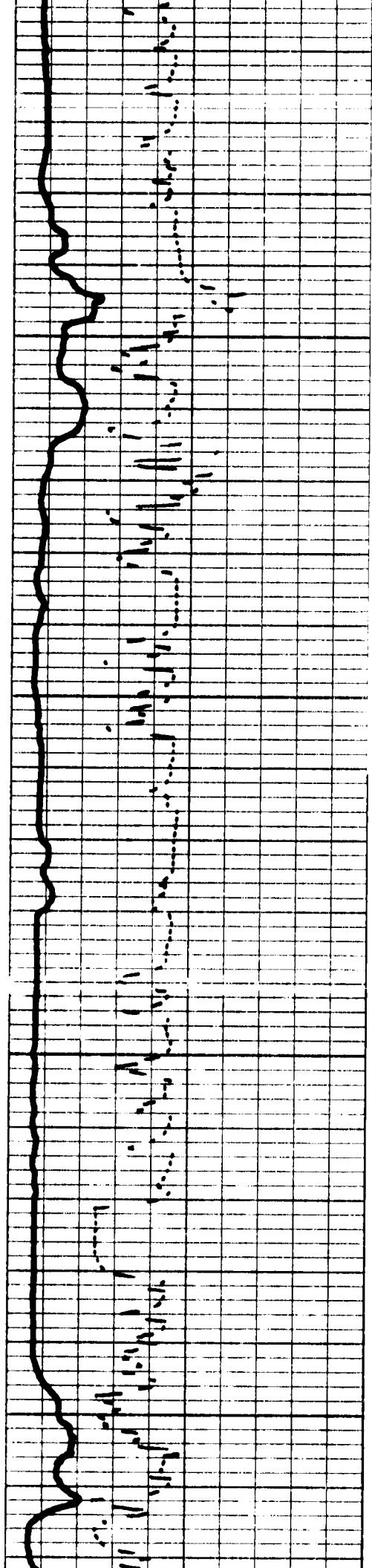




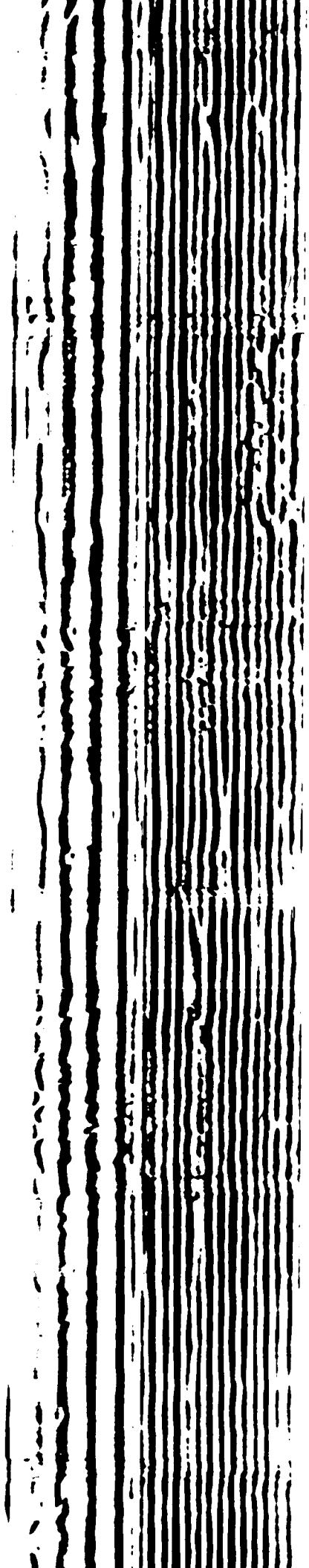


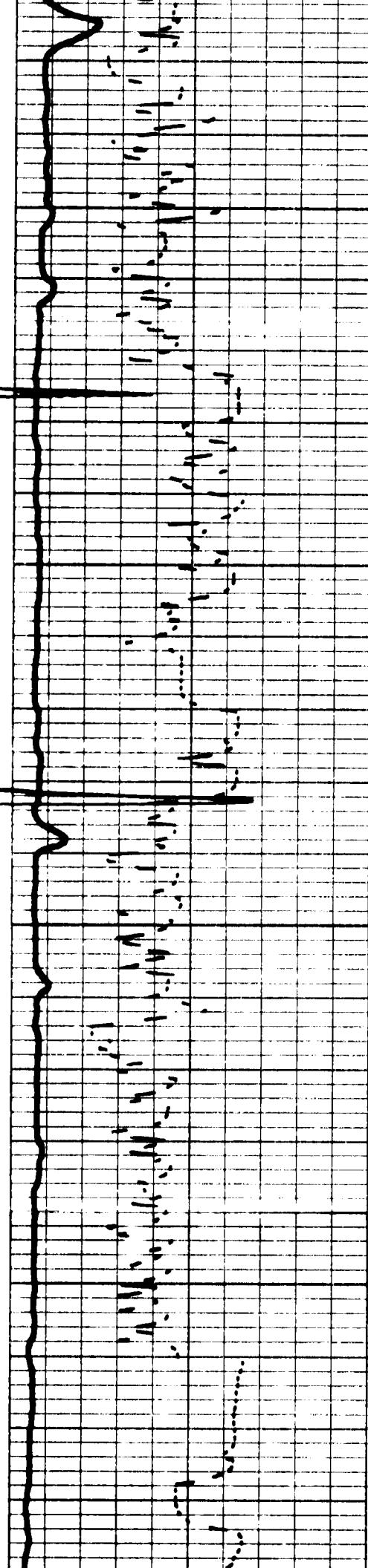
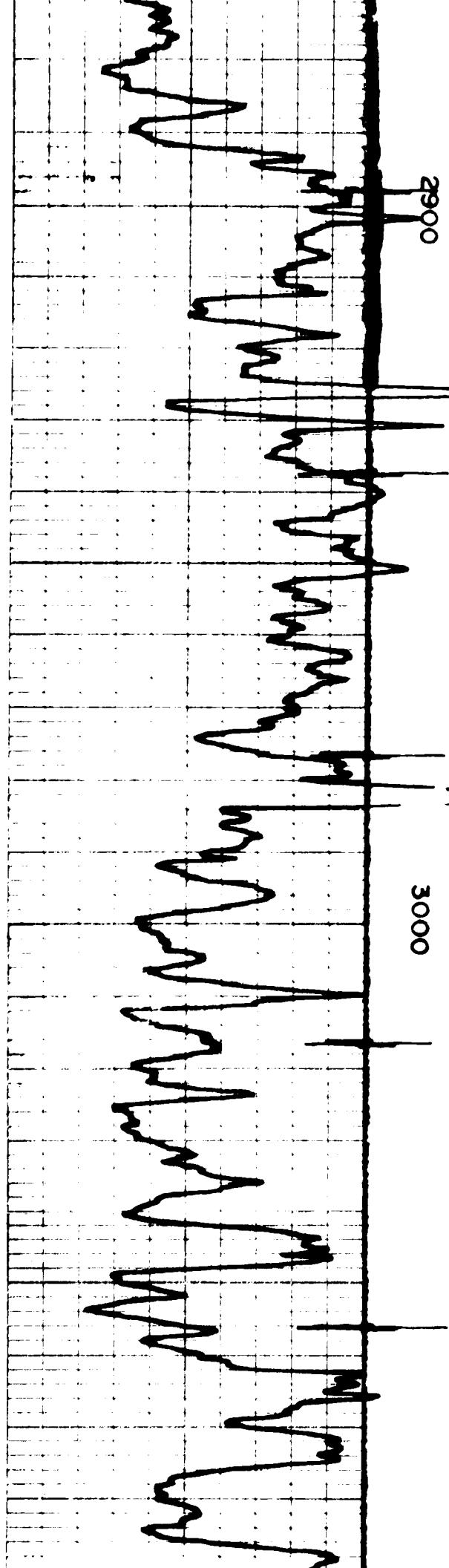
2100

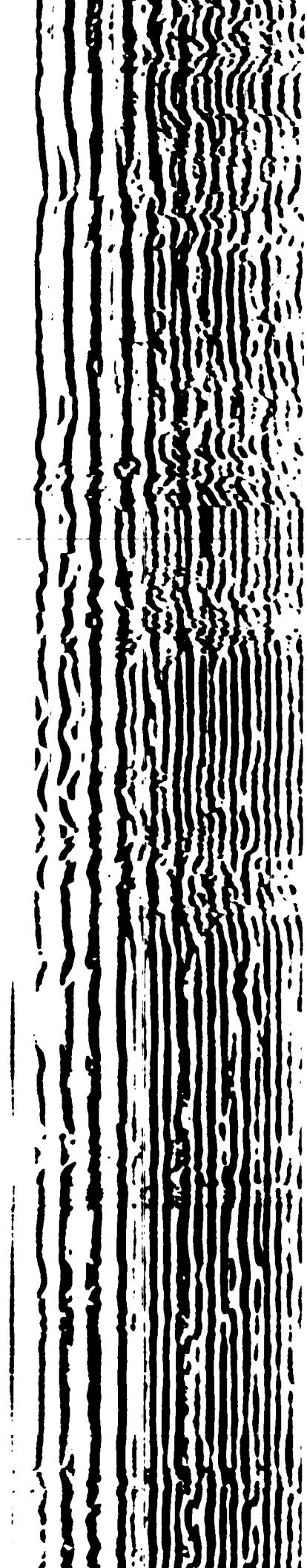
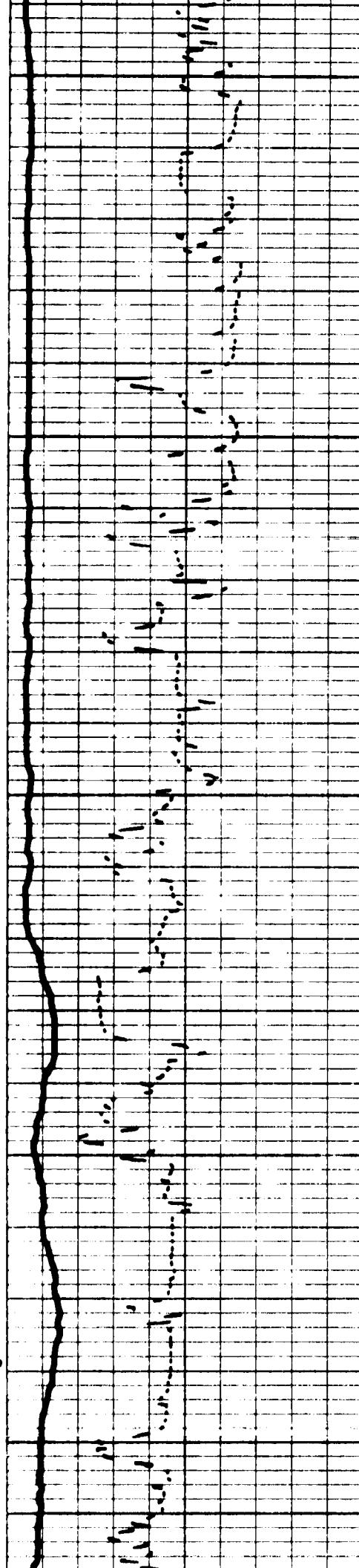
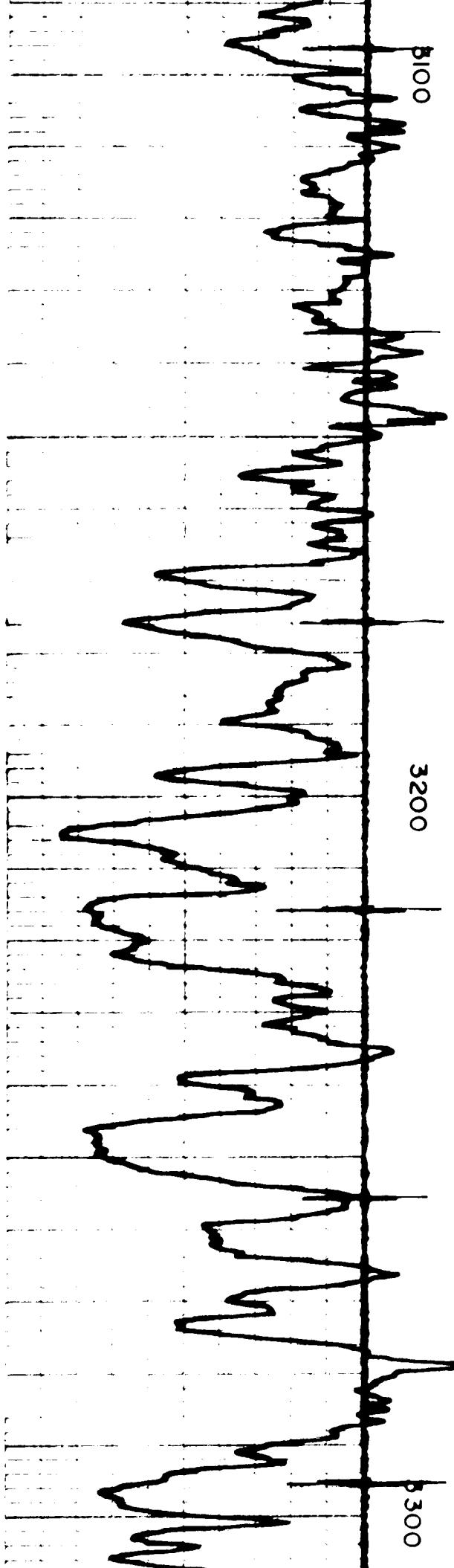
2800

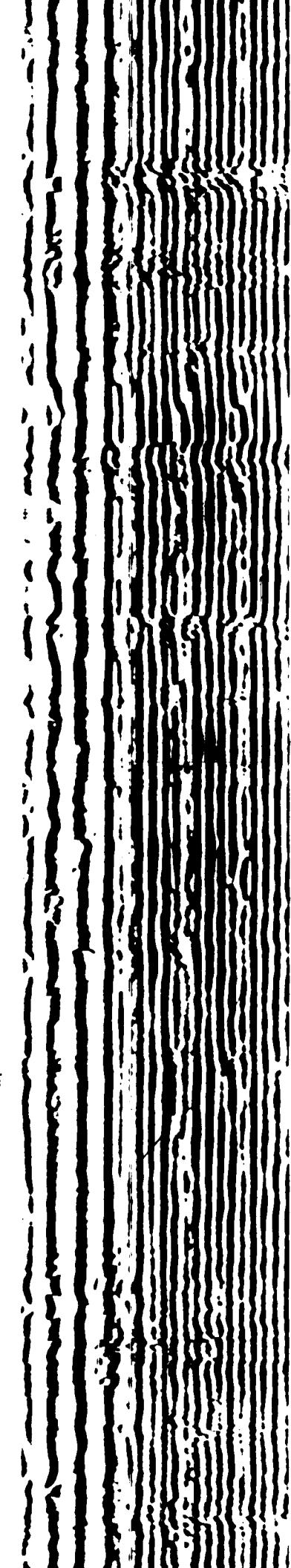
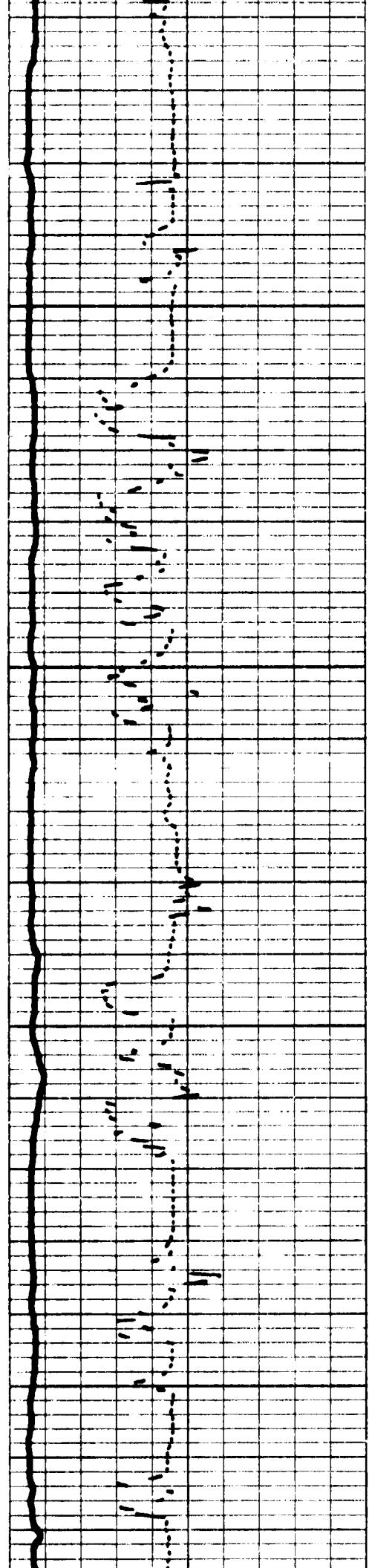
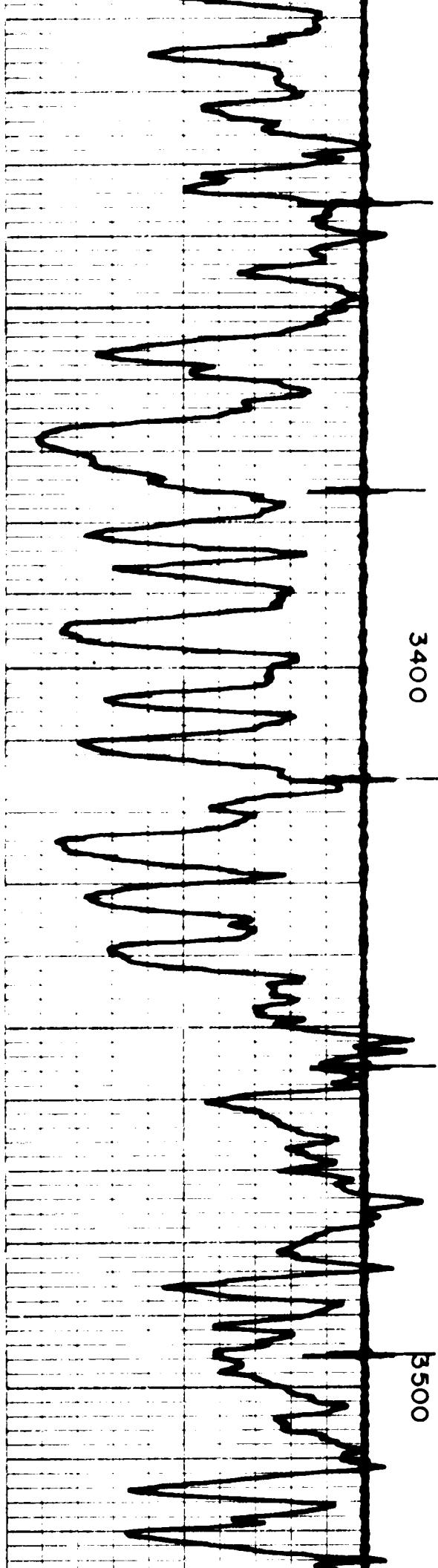


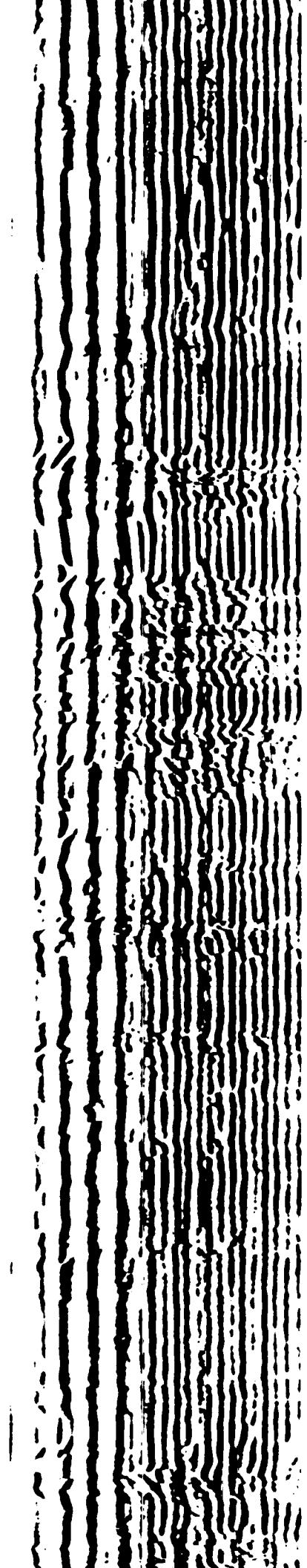
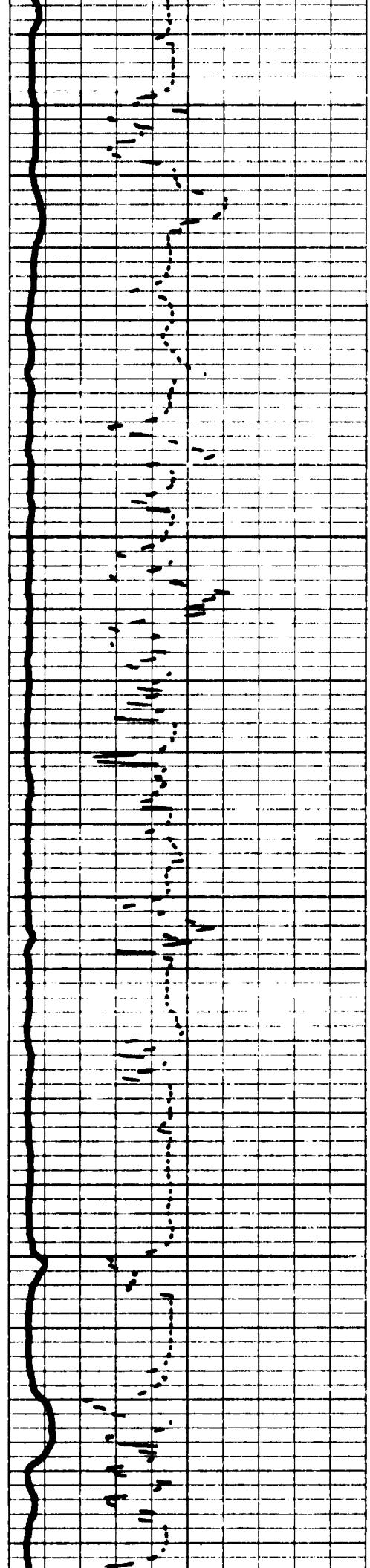
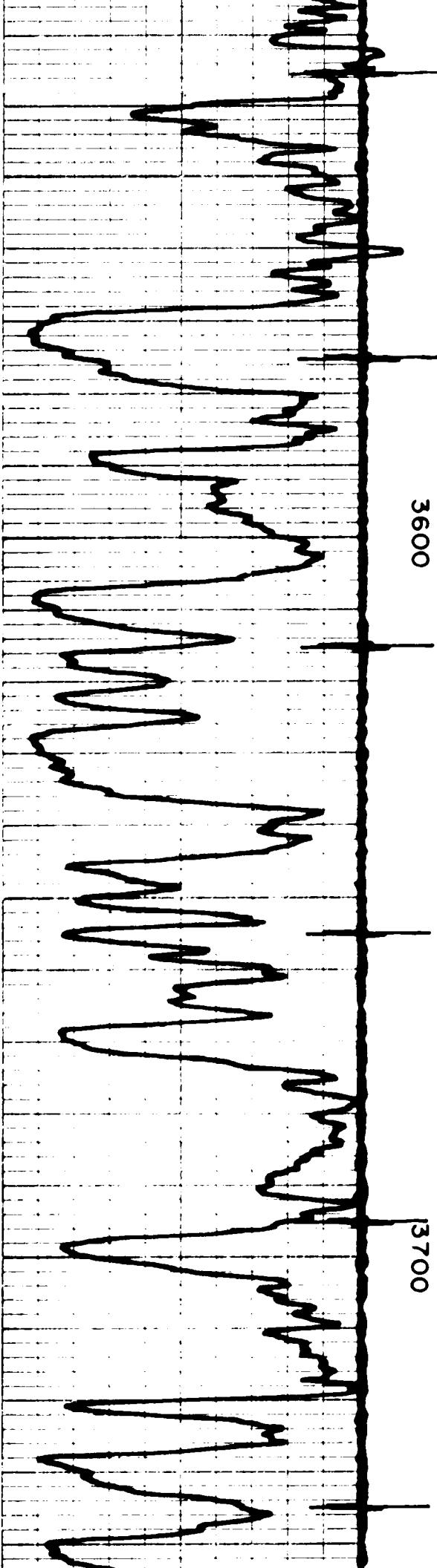
110

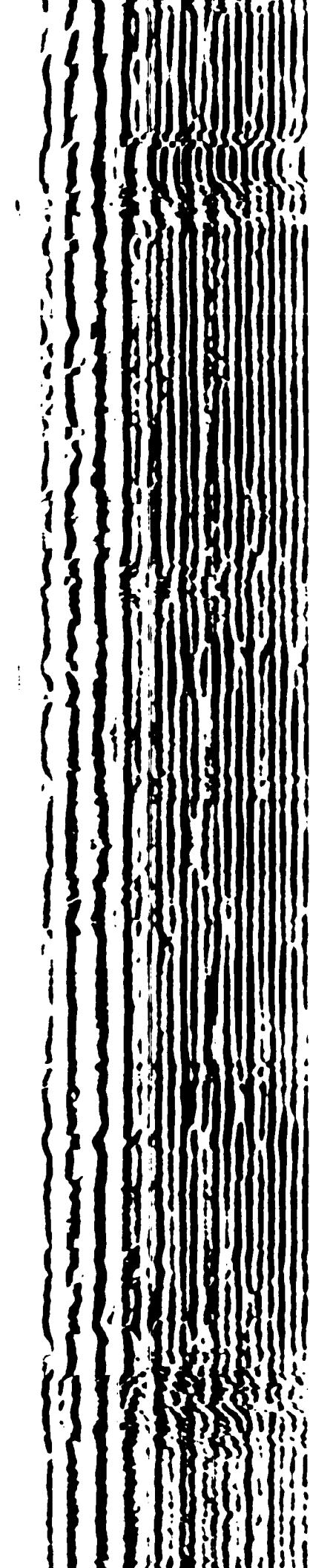
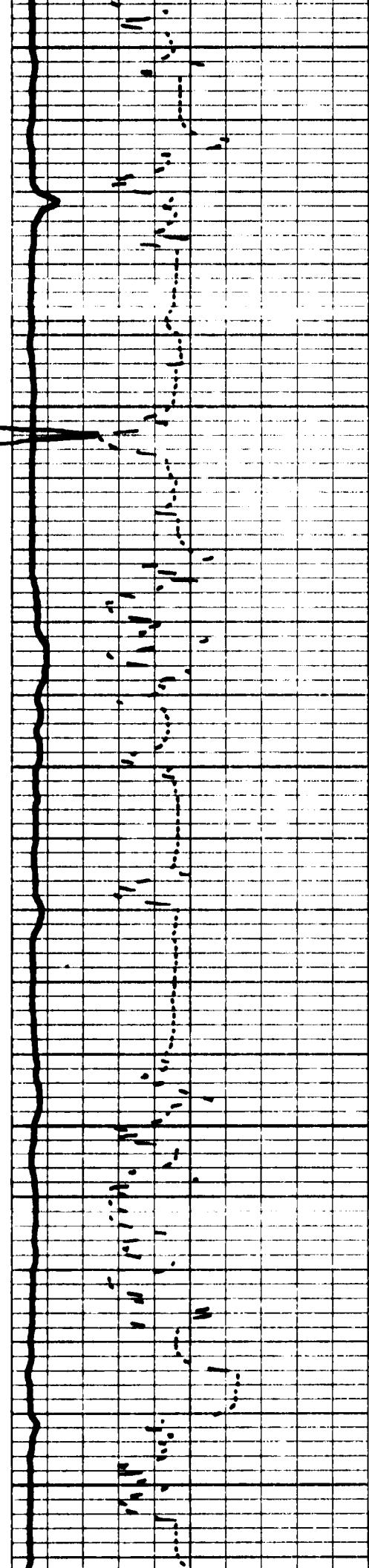
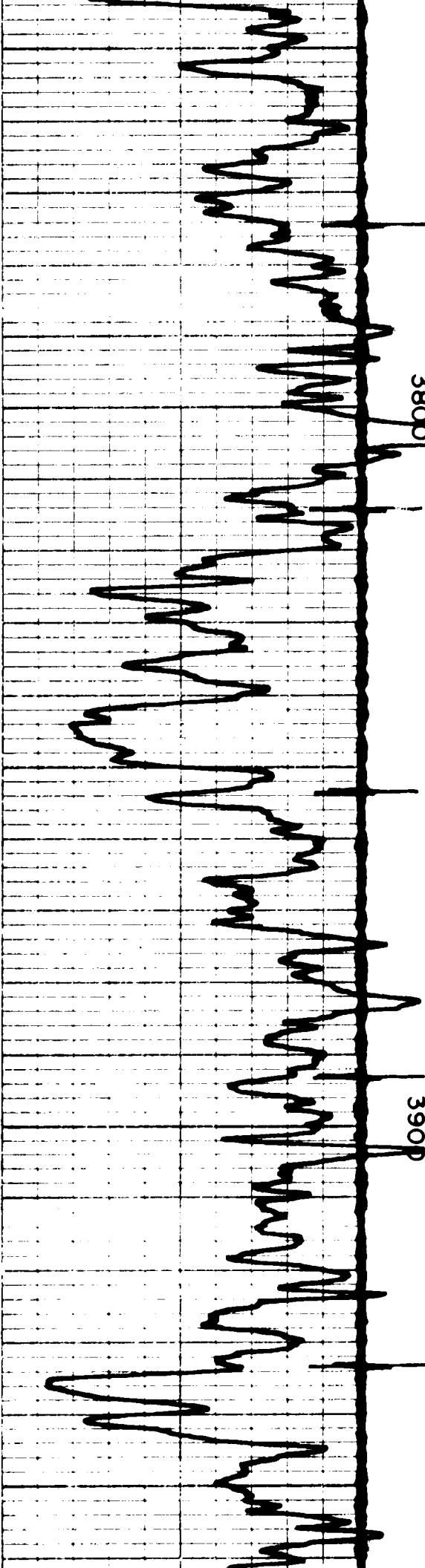


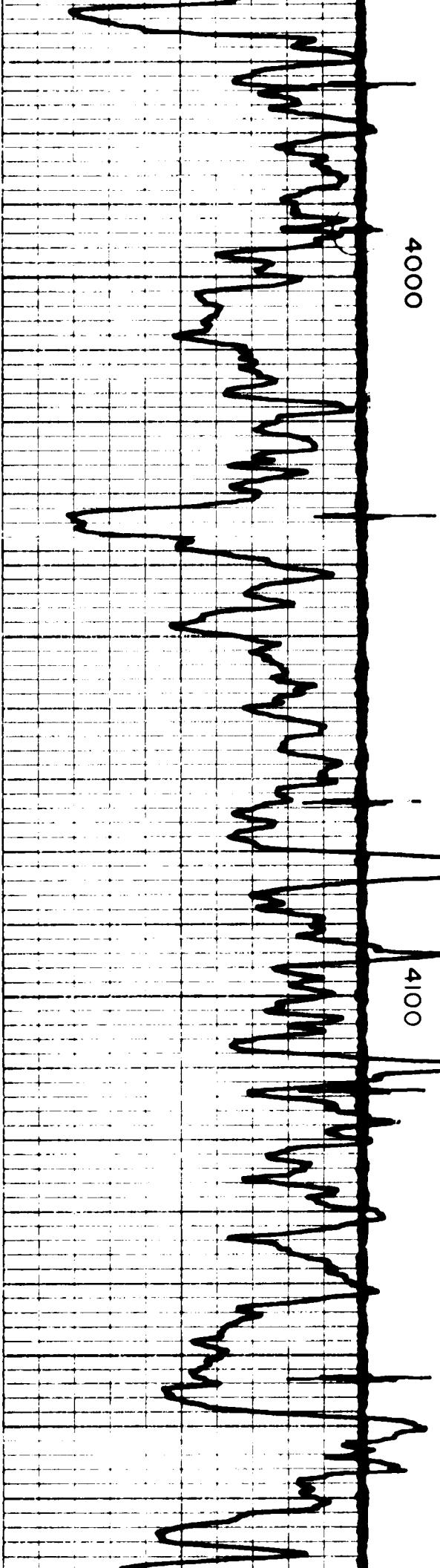




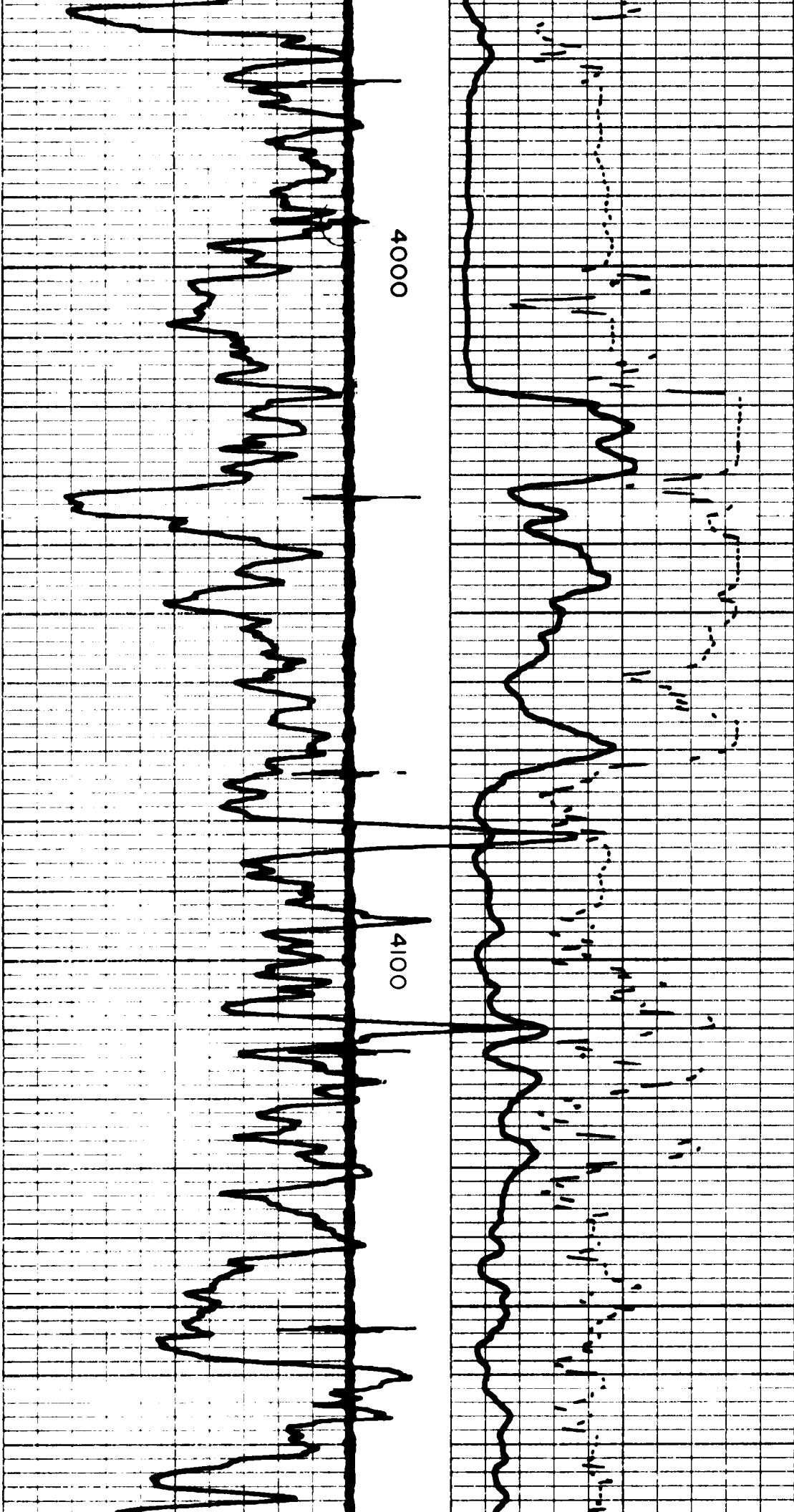






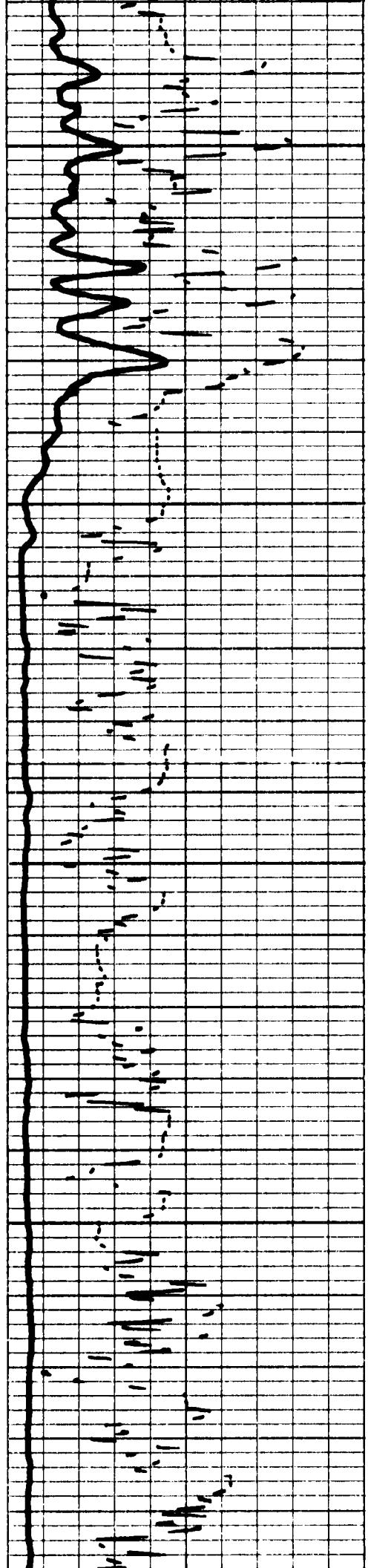
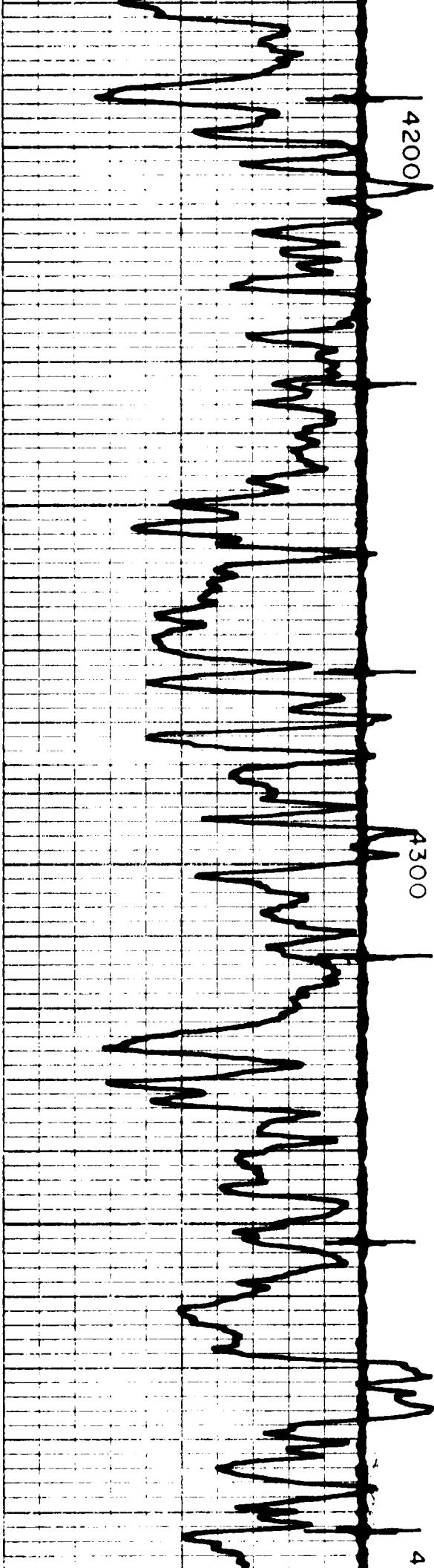


4000



4100

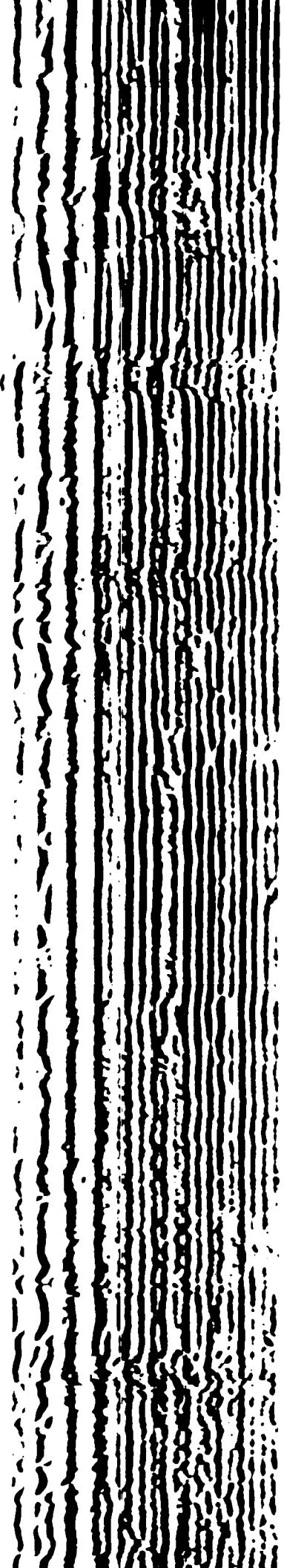
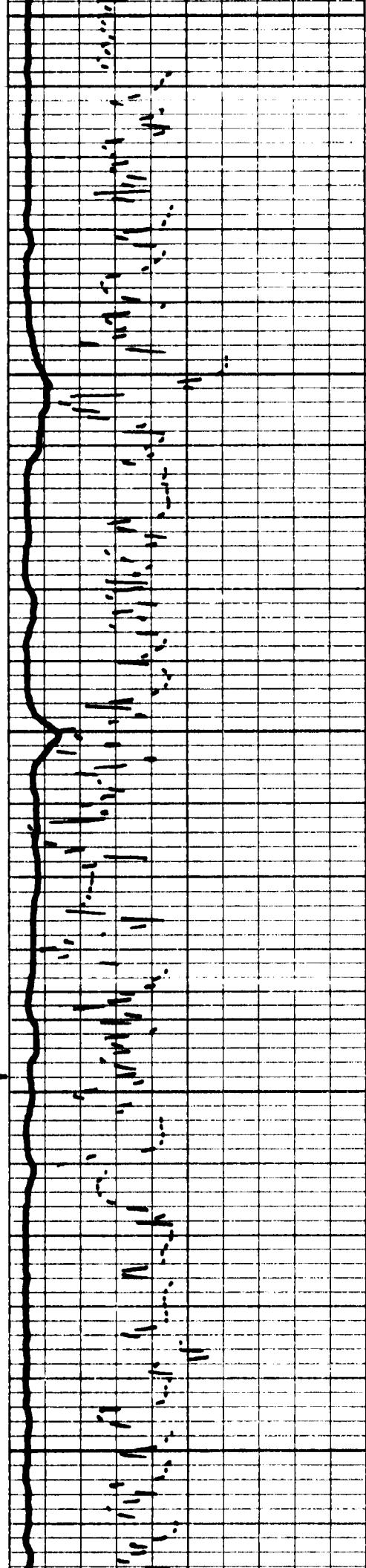


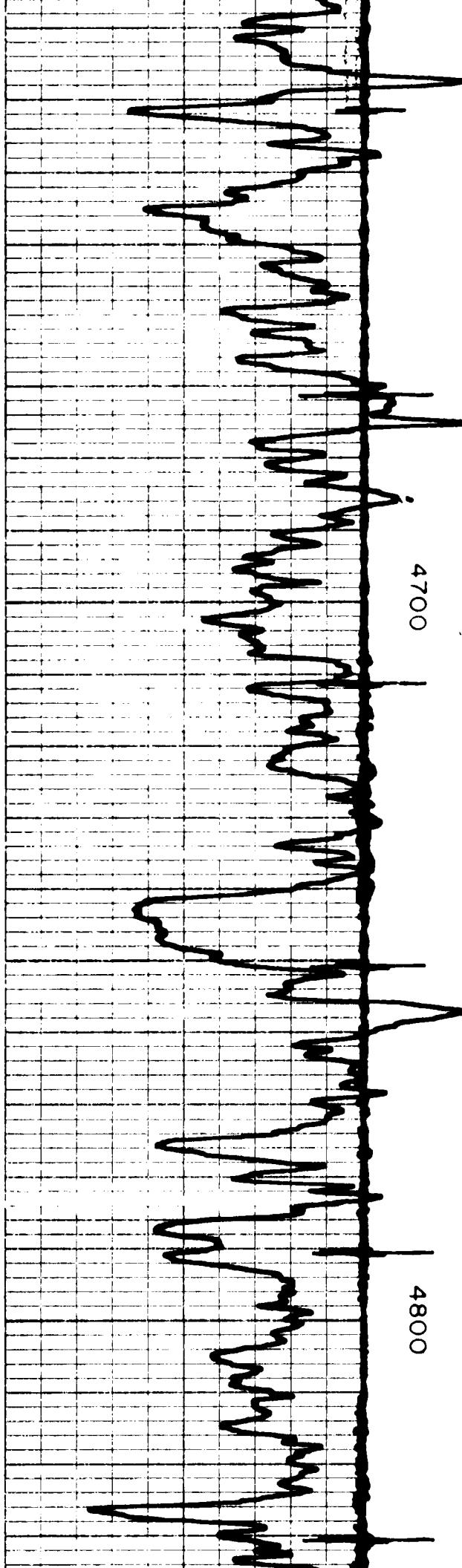


400

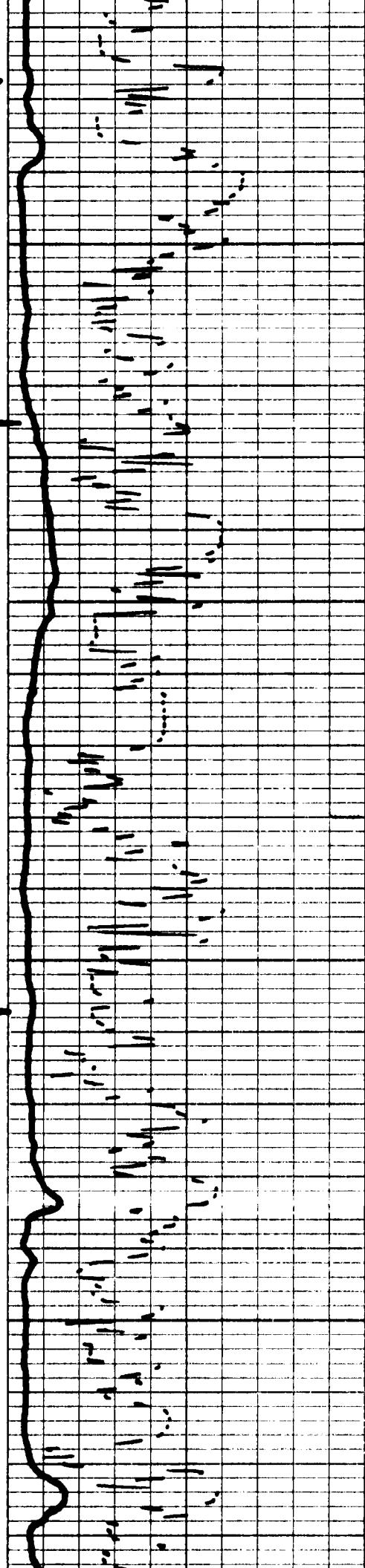
4500

4600

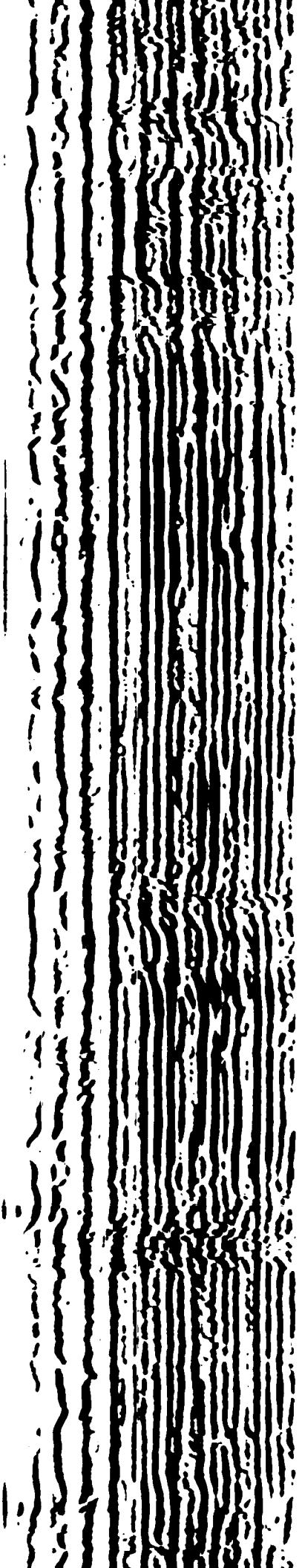


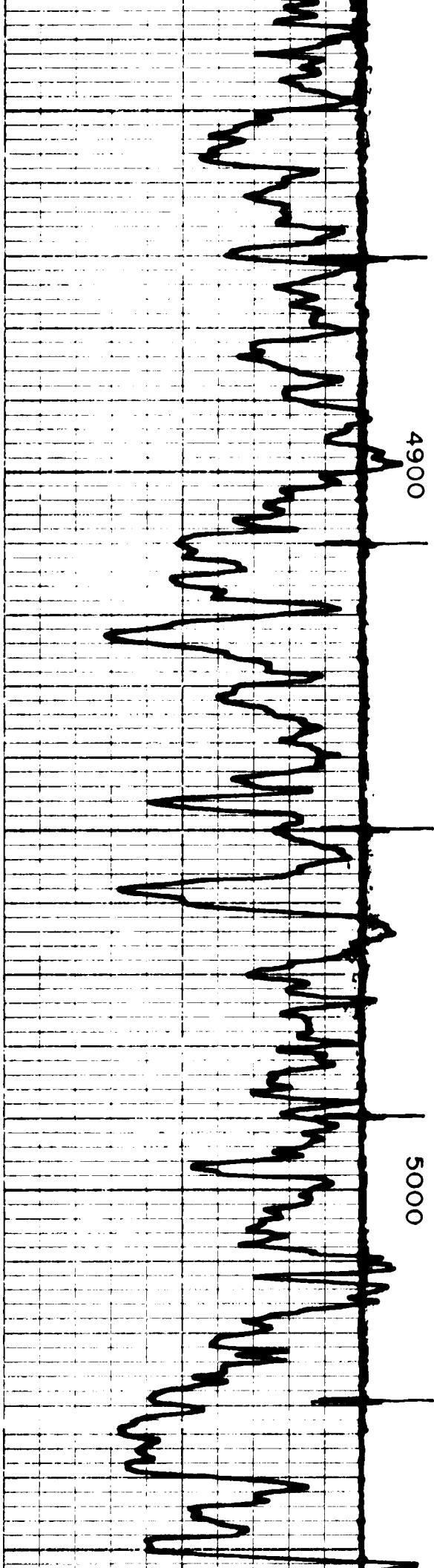


4700

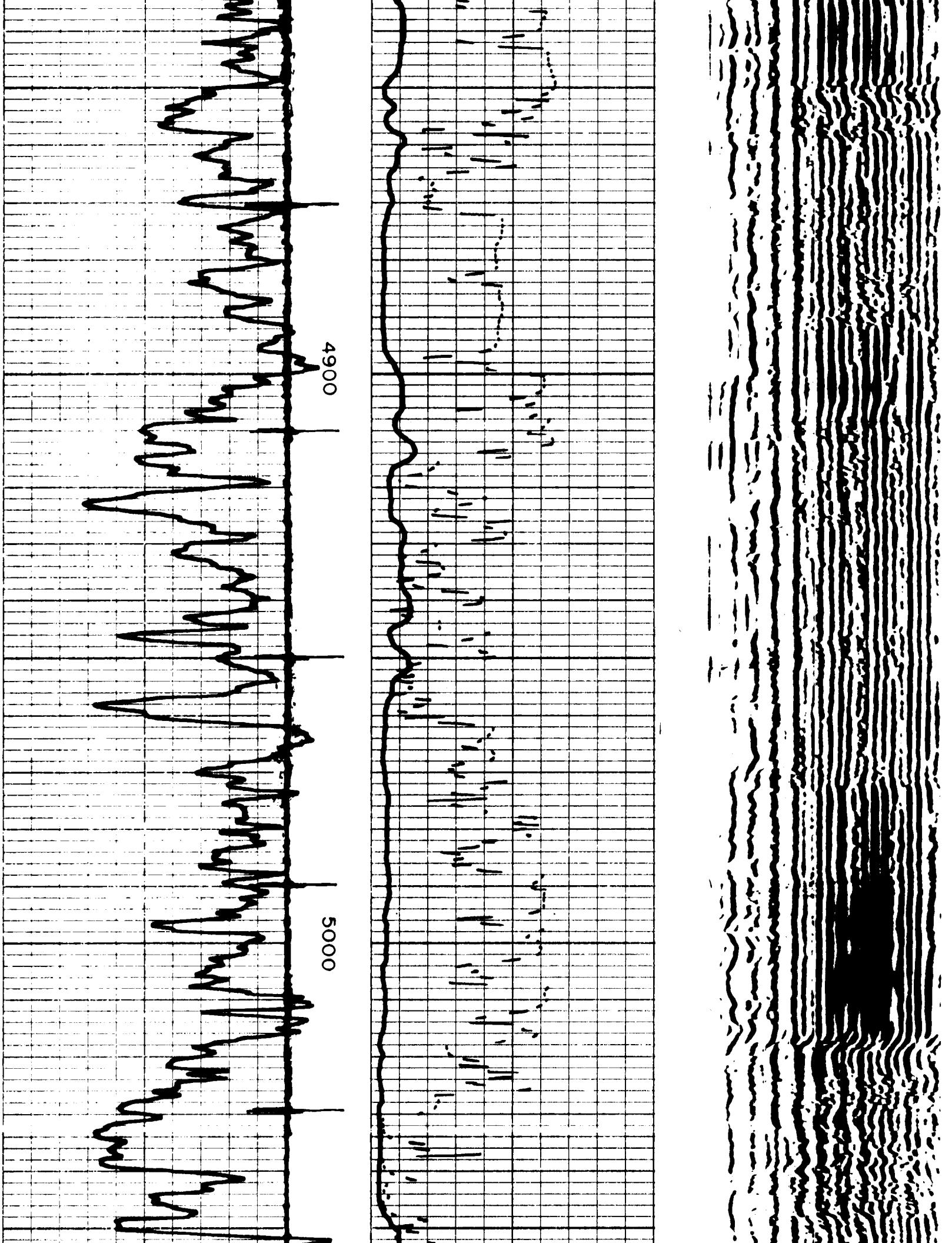


4800

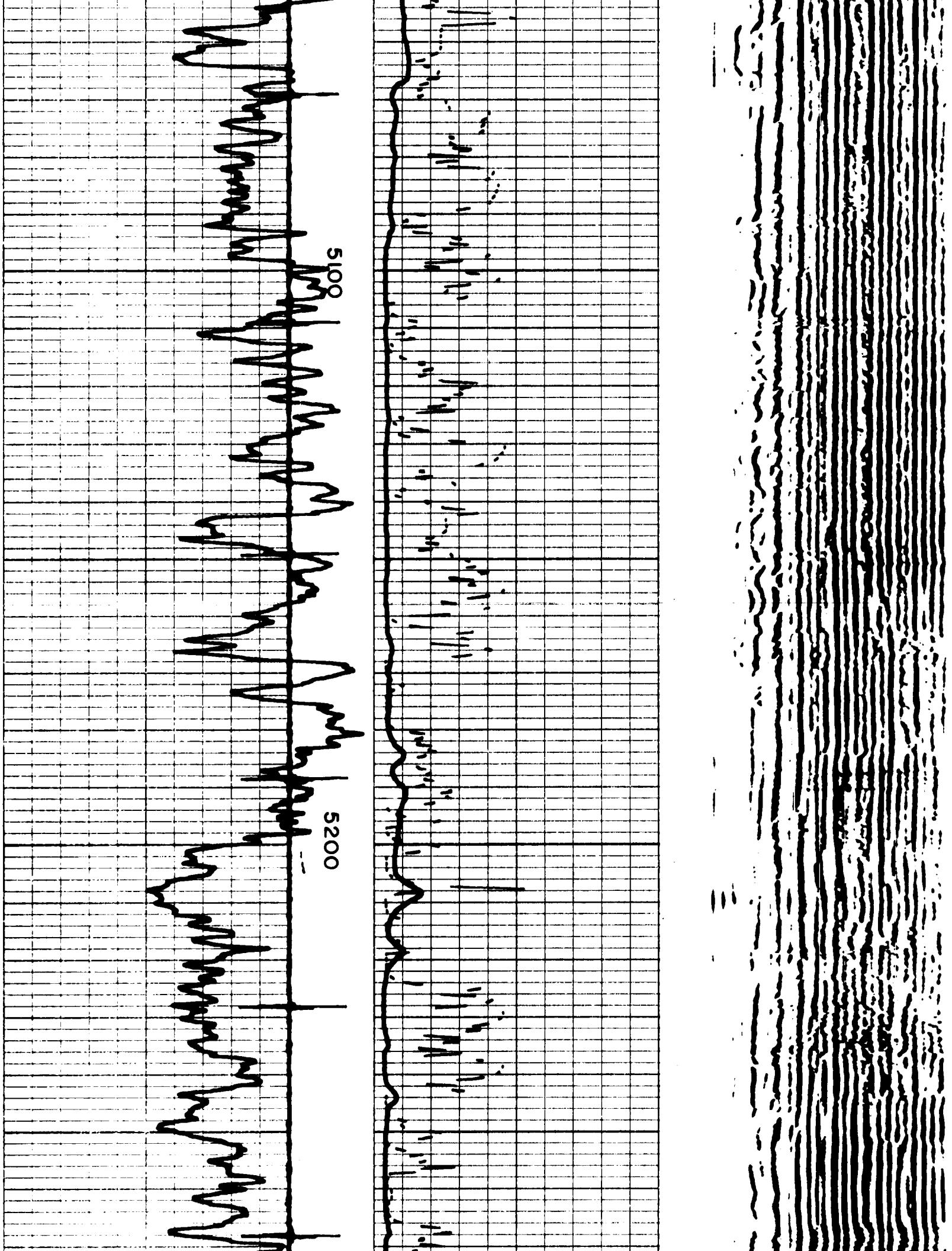


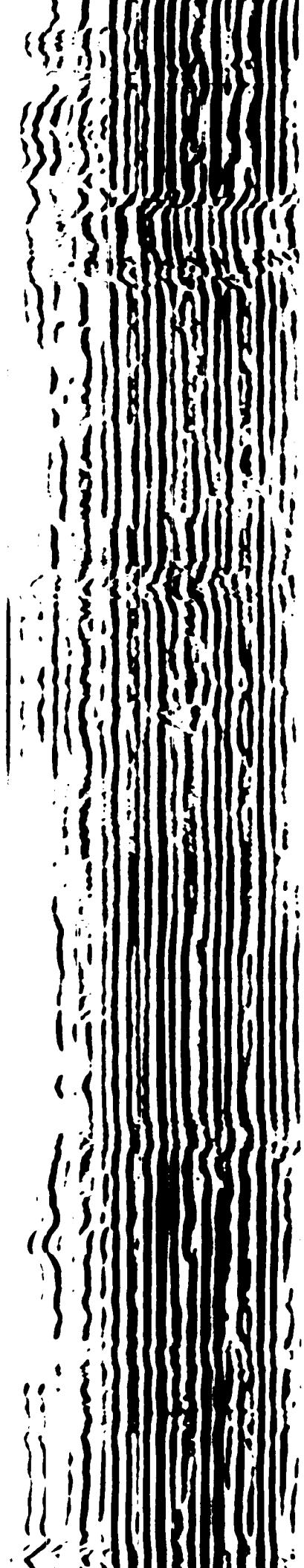
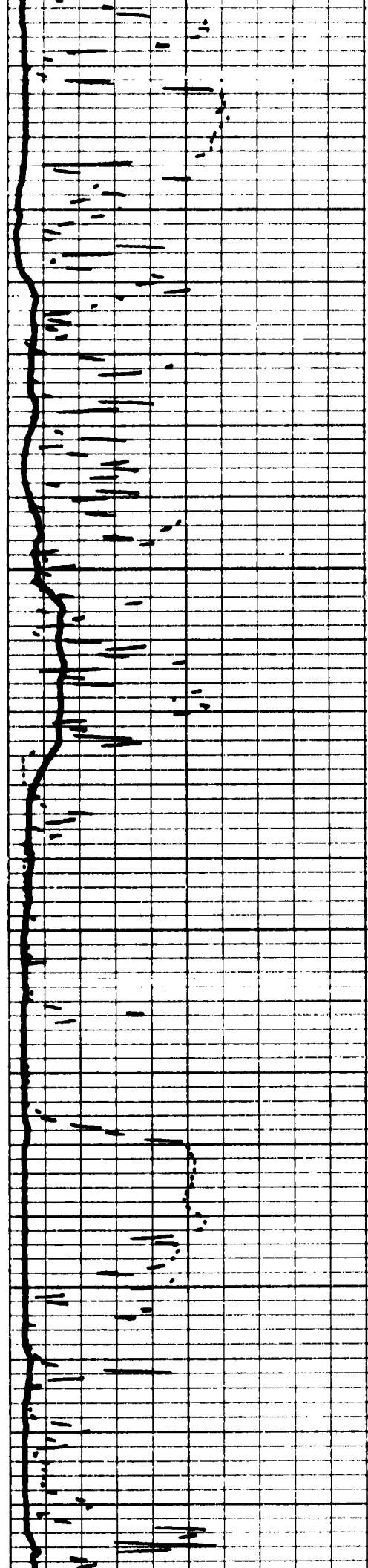
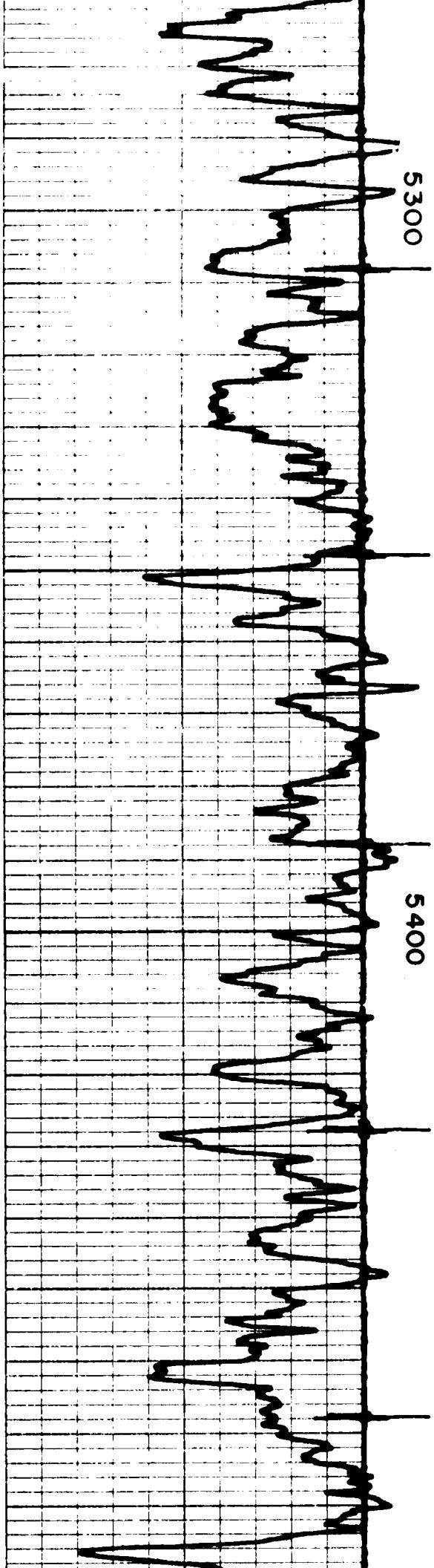


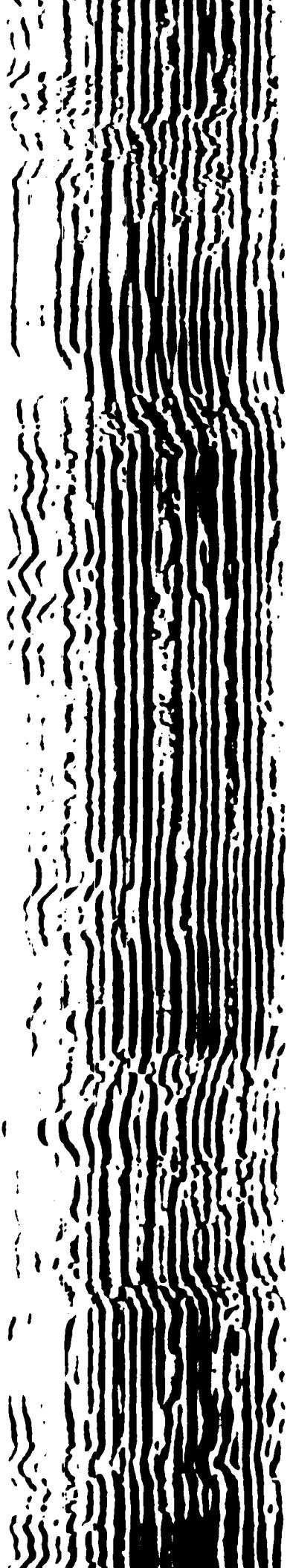
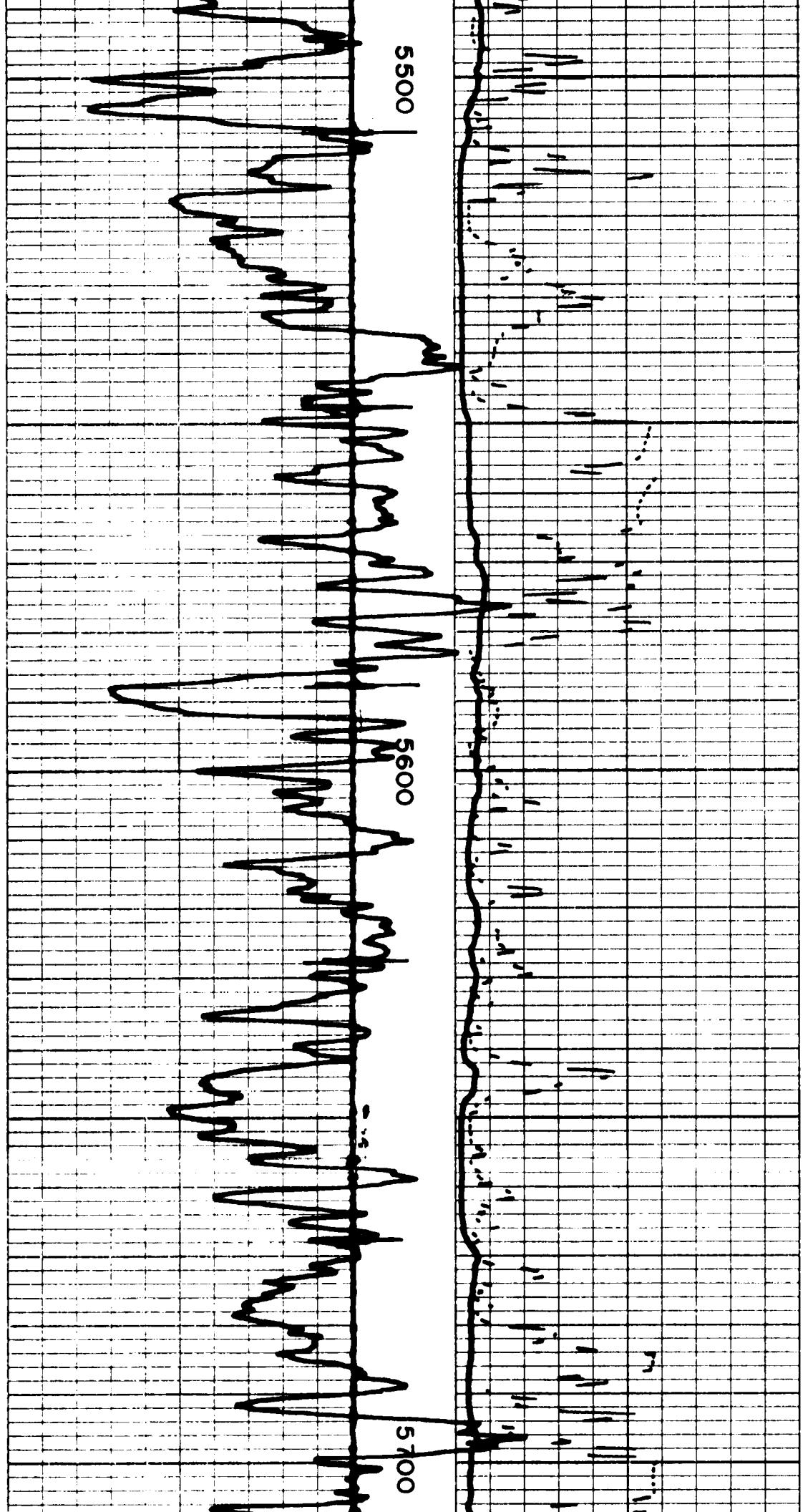
4900

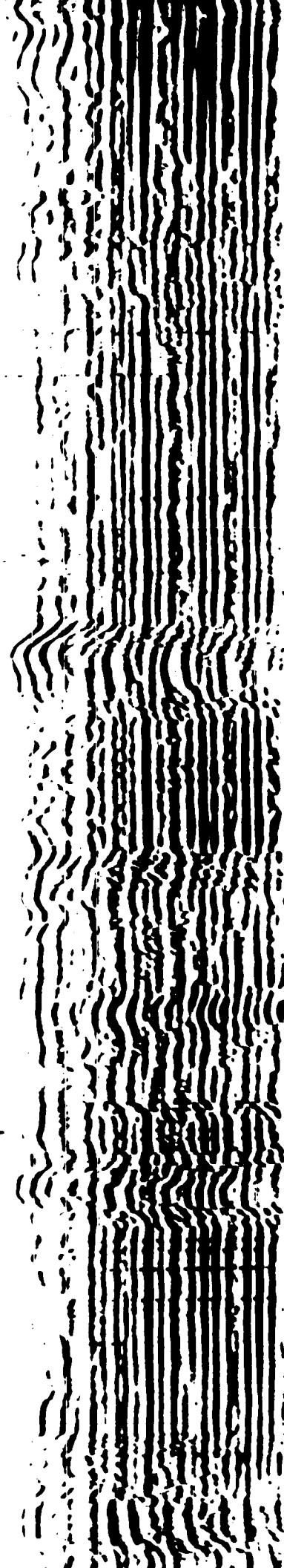
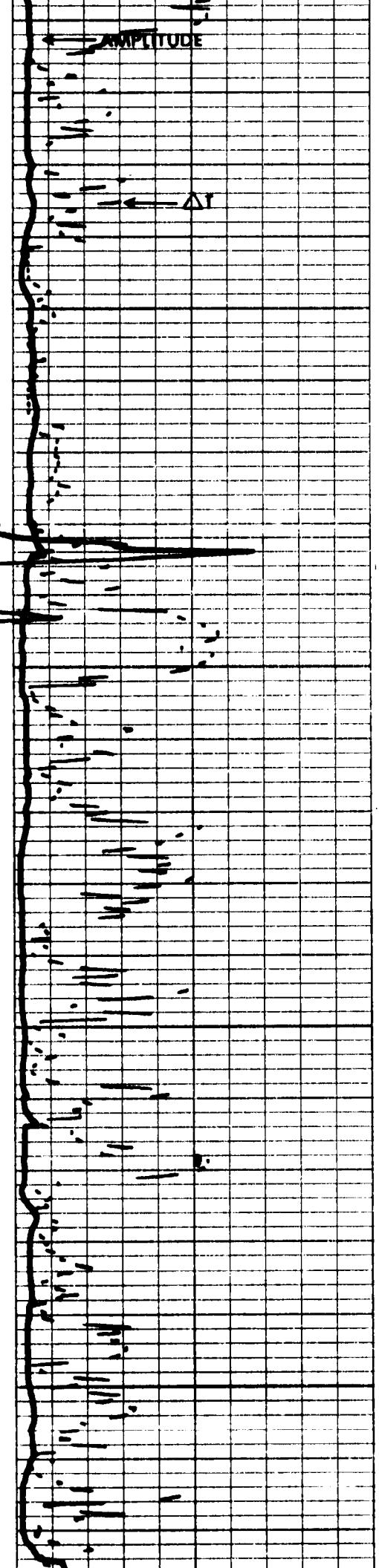
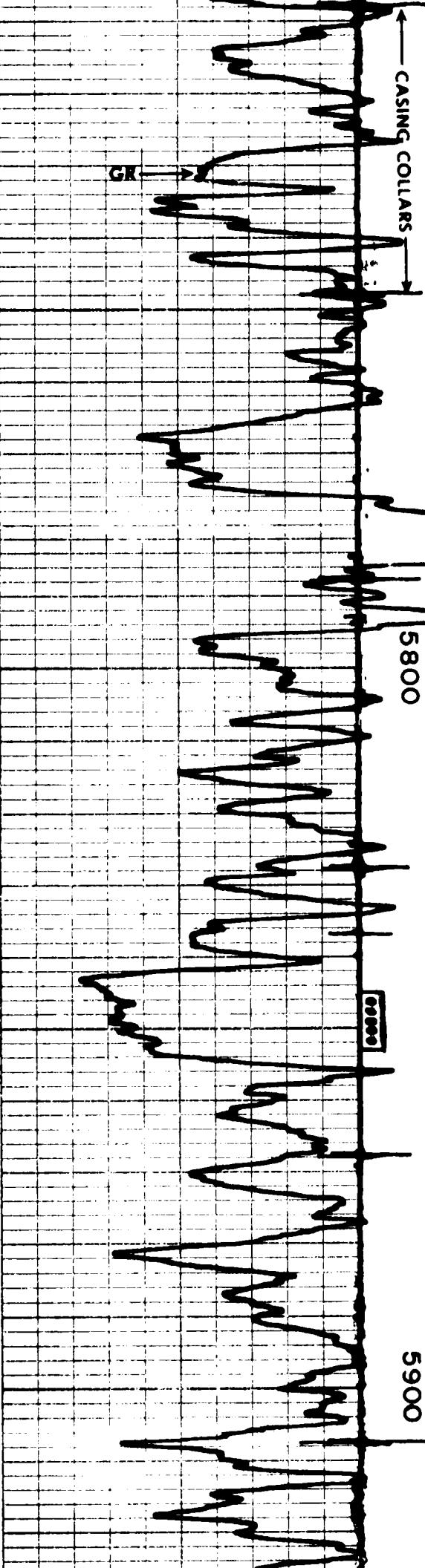


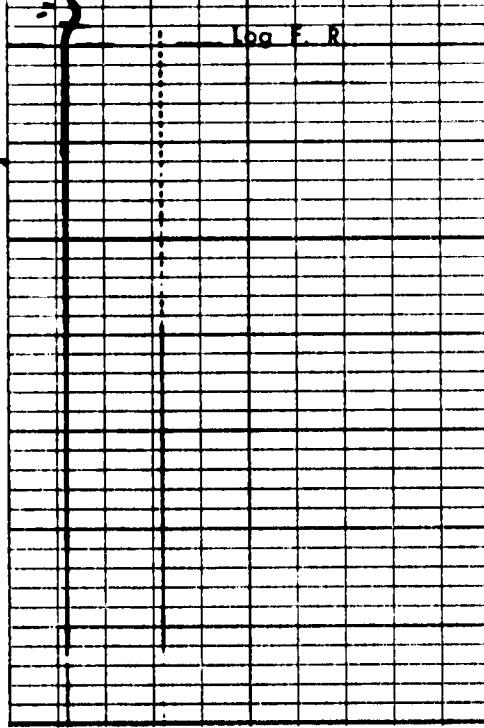
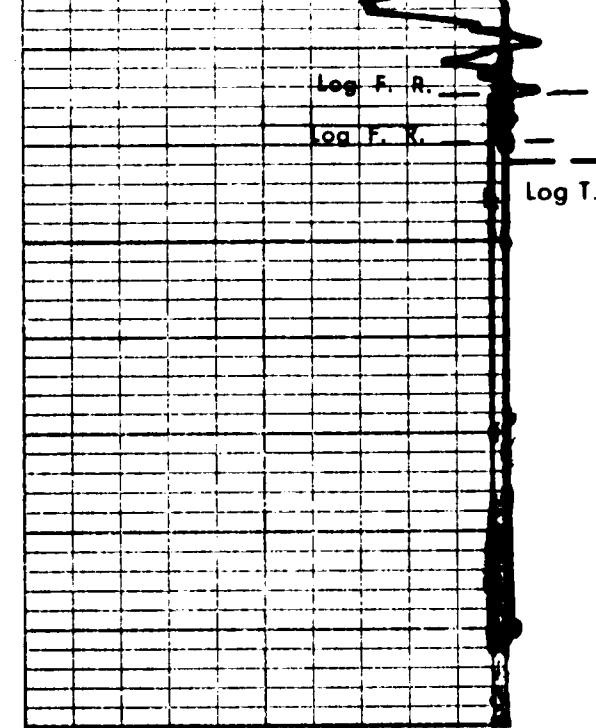
5000





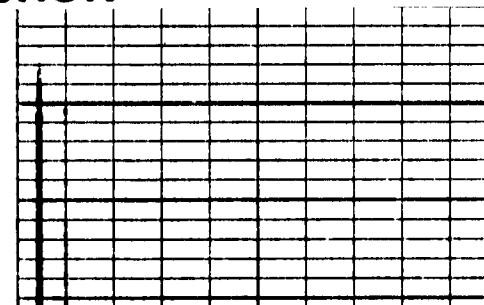


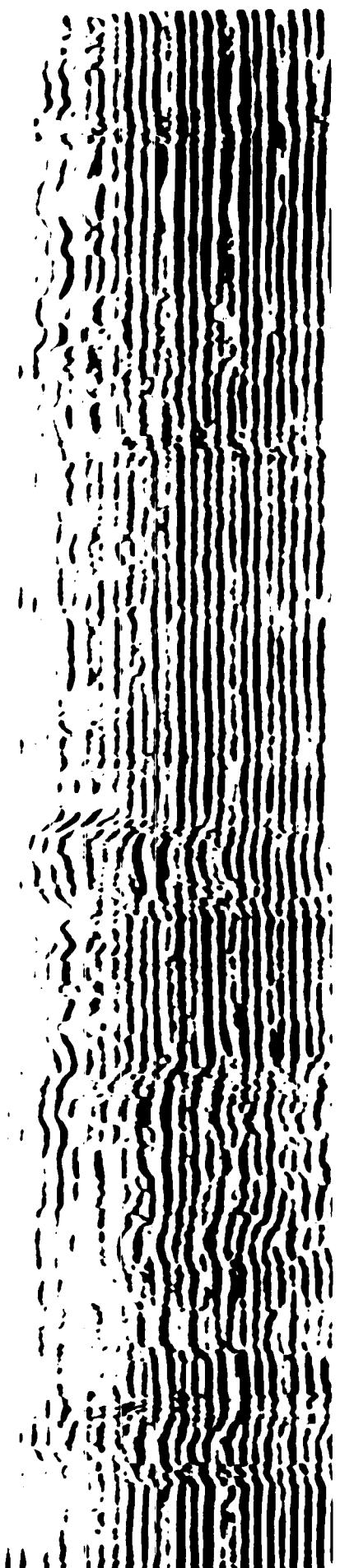
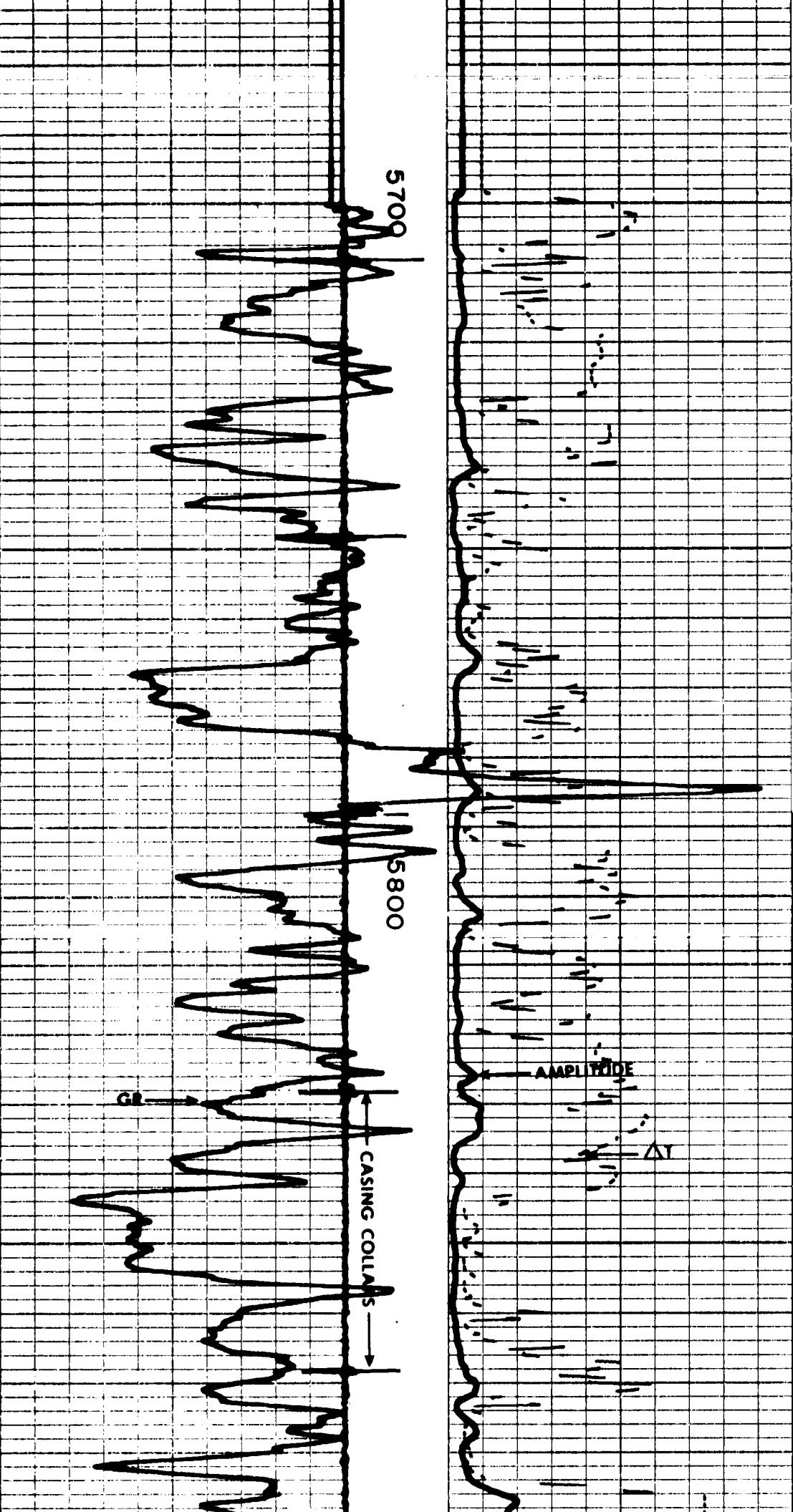


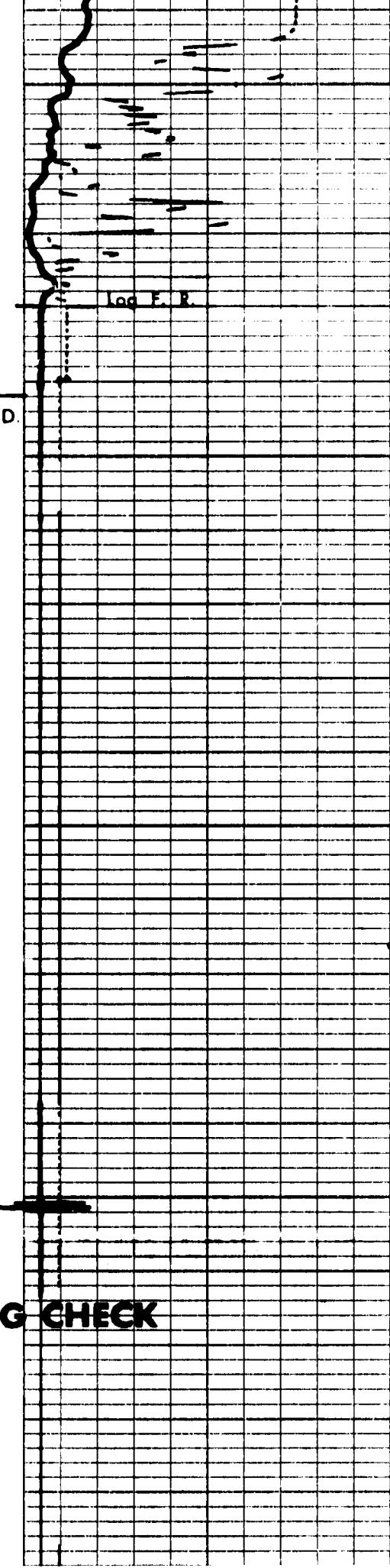
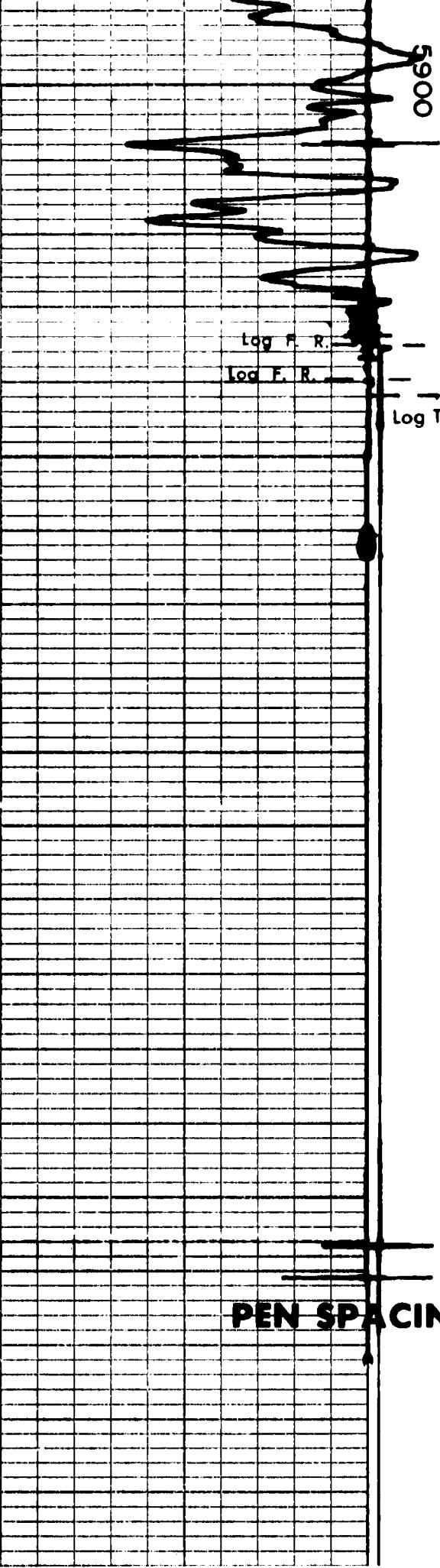


RADIATION INTENSITY INCREASES		MICROSECONDS	
140 MICROSECONDS - 40 DELTA TIME		100 1100	
GAMMA RAY	DEPTH	COMPRESSION WAVE AMPLITUDE	VARIABLE DENSITY
Company	COORS ENERGY COMPANY	Drillers T.D.	6657
Well	UTE TRIBAL #2-31	Log F.R.	5940
Field	ANTELOPE CREEK	Log T.D.	5942
County	DUCHESNE	Elevations:	
State	UTAH	K.B. 6752.5 D.F. 6751.5 G.L. 6738	

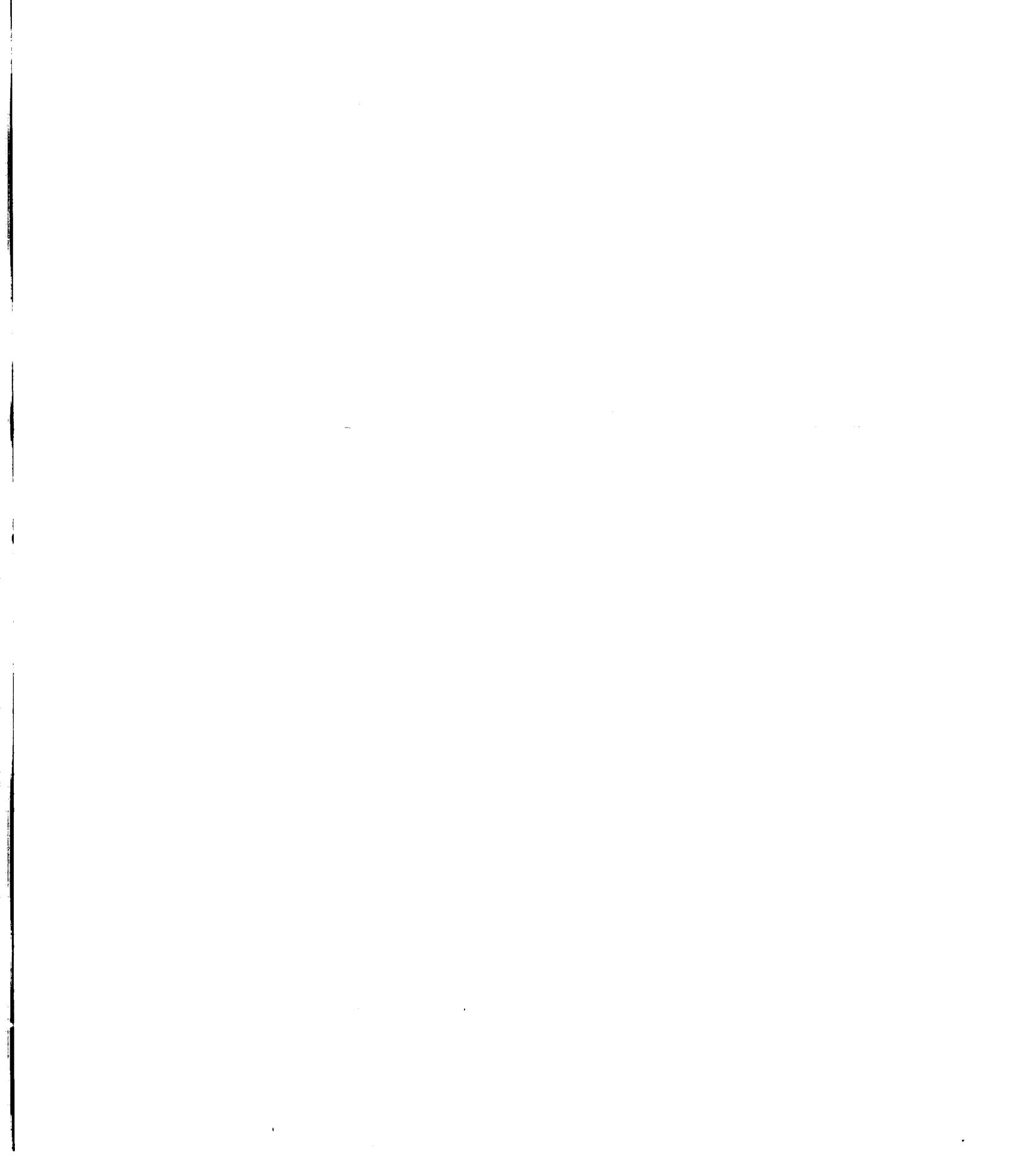
REPEAT SECTION







PEN SPACING CHECK



ATTACHMENT NO. 8

OPEN HOLE LOG FOR THE UIC WELL

GEARHART

**COMPENSATED DENSITY
COMPENSATED NEUTRON
LOG
W/BOREHOLE VOLUME**

AUG 31 1987

5500

2

DUCHESENE

STATE

UTAH

CO.

GASCO

DIV.

GASCO

LOC.

GASCO

NOTICE: Gearhart Industries, Inc. cannot and does not guarantee the accuracy or correctness of any log data or of any interpretation thereof and shall not be liable or responsible for any loss, cost, damage or expense incurred or sustained by Customer resulting from any log data or interpretation made by Gearhart Industries, Inc. or any of its agents, servants or employees. Neither log data nor interpretation thereof should be relied upon as the sole basis for any drilling, completion, well treatment or production decision or any other procedure. Unless there is presently in effect a master or other specific or general contract intended to extend and apply hereto, this Log is provided in accordance with Gearhart Industries, Inc.'s General Terms and Conditions as set out in its current price schedule.

GEARHART INDUSTRIES, INC.

07-11-87

11:04

394.5

359265

0152-05

0

11

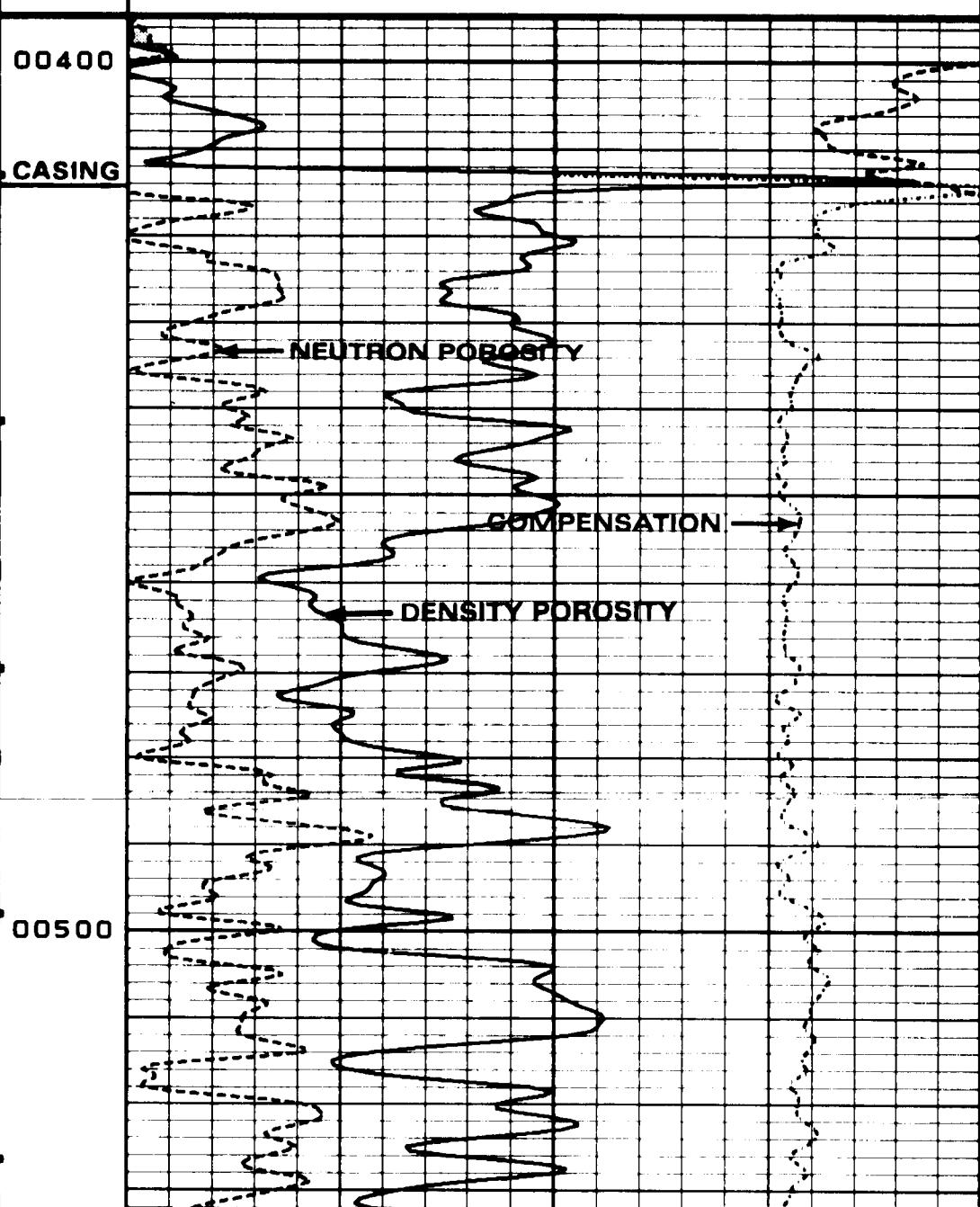
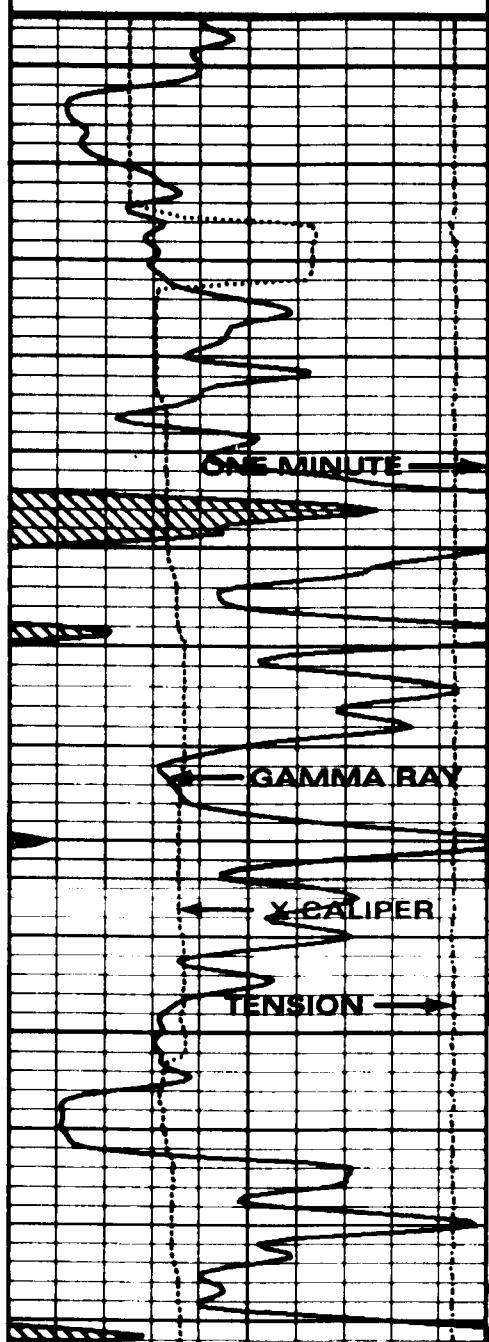
-0.25 ΔΡ (G/CC) 0.25

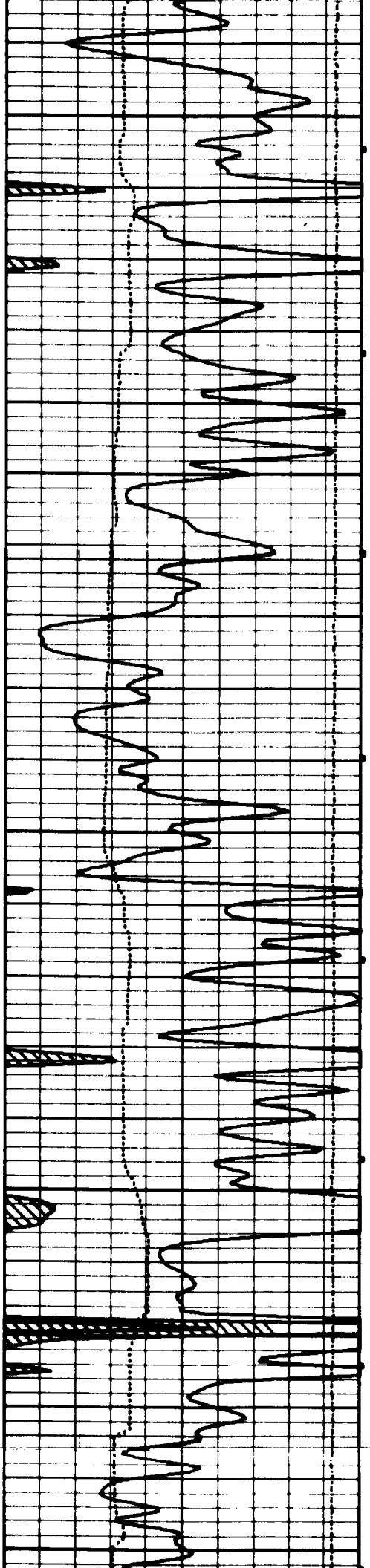
0 GR (API) 150

30 Ø-CNS. SD -10

6 CAL-X (IN) 18

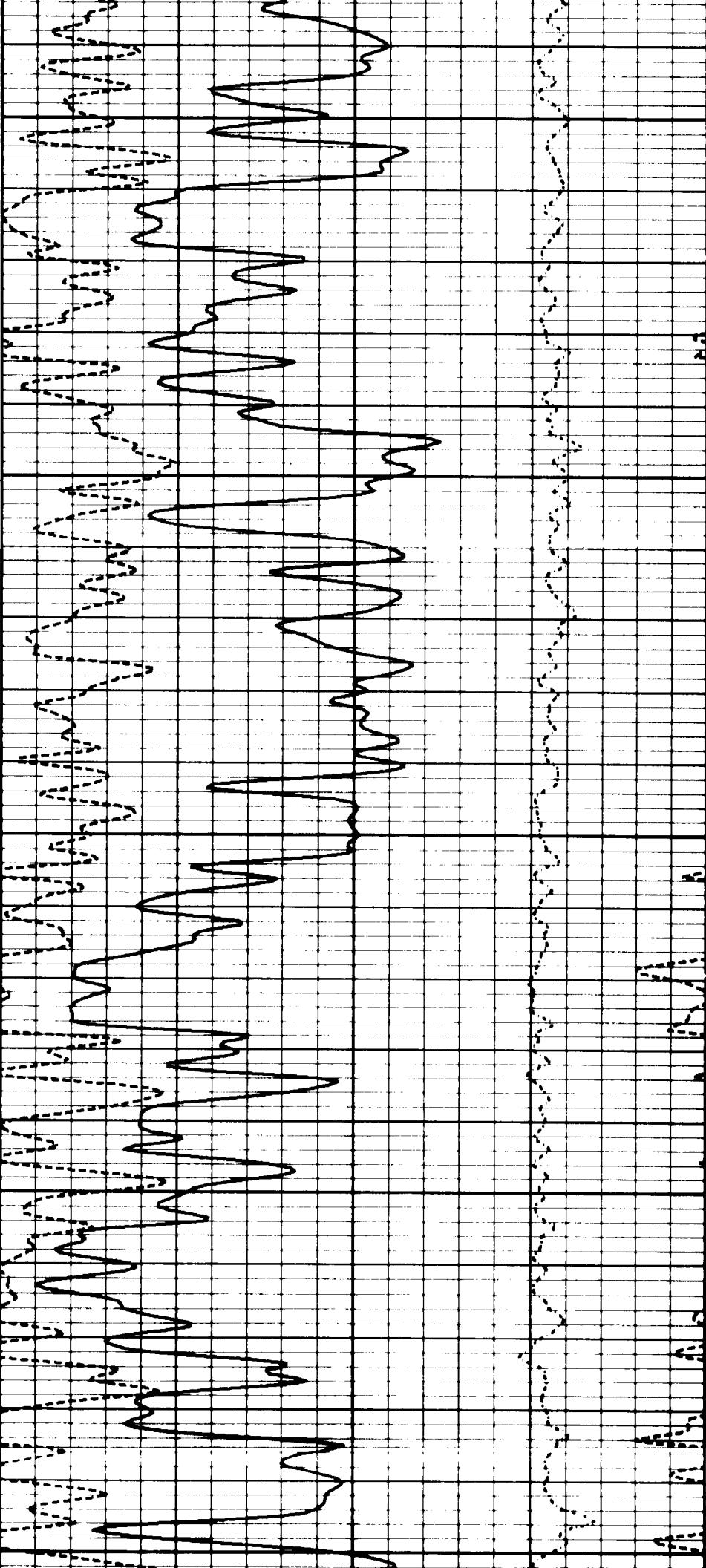
30 Ø-CDL -10

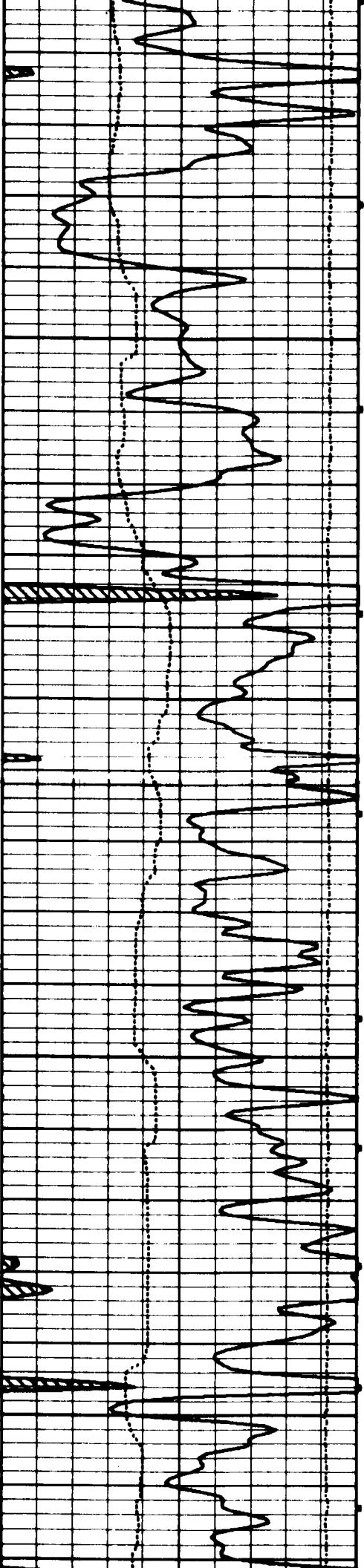




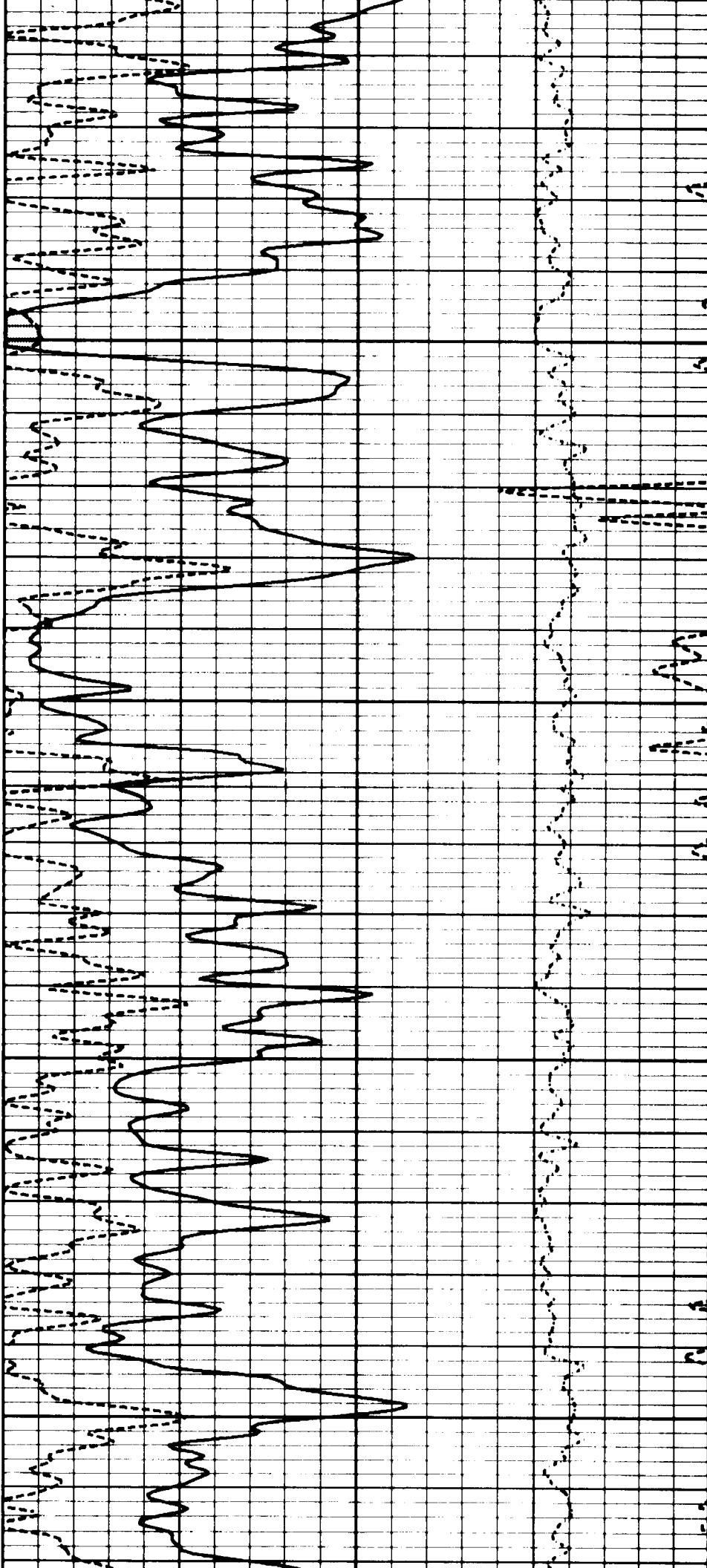
00600

00700

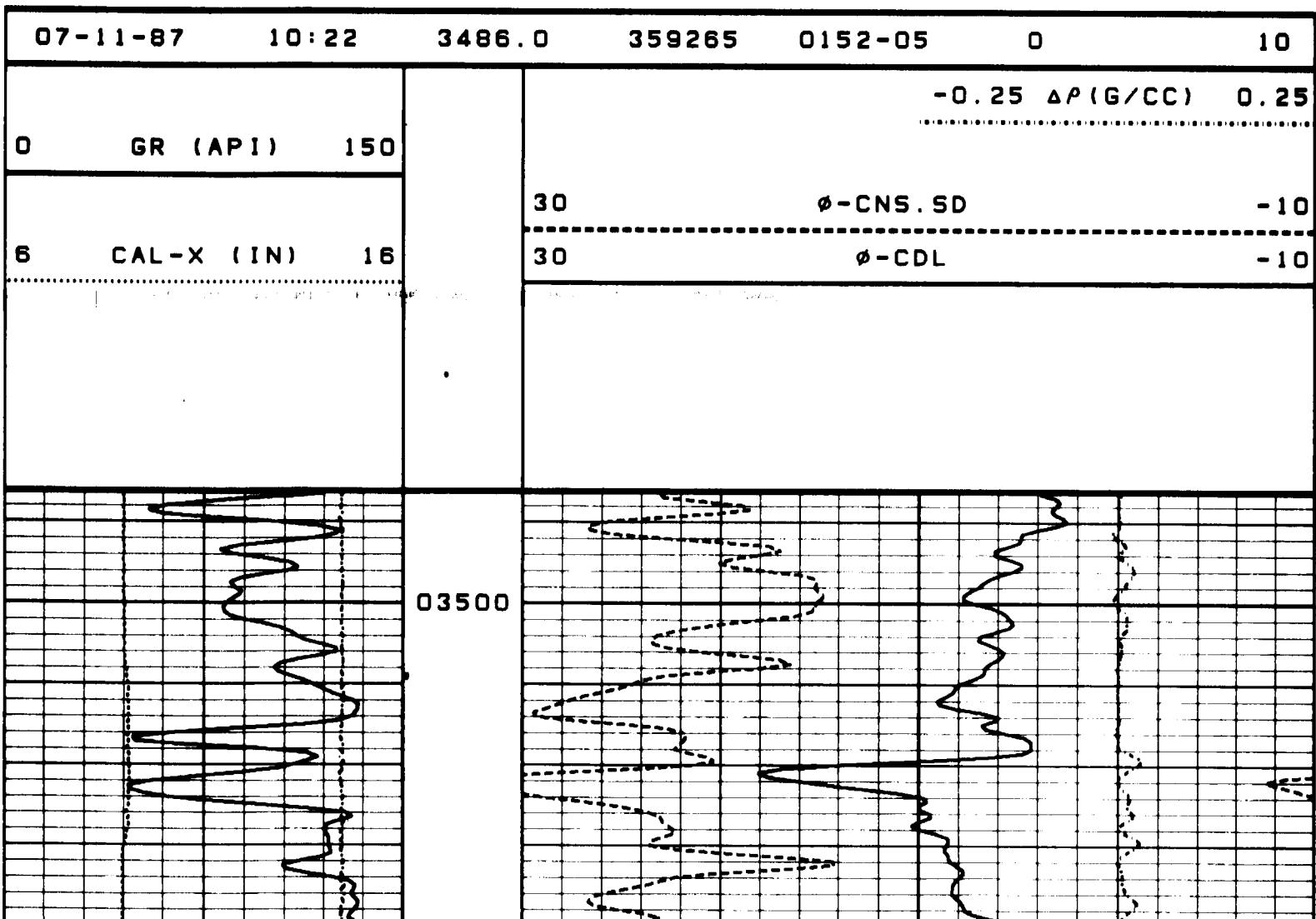
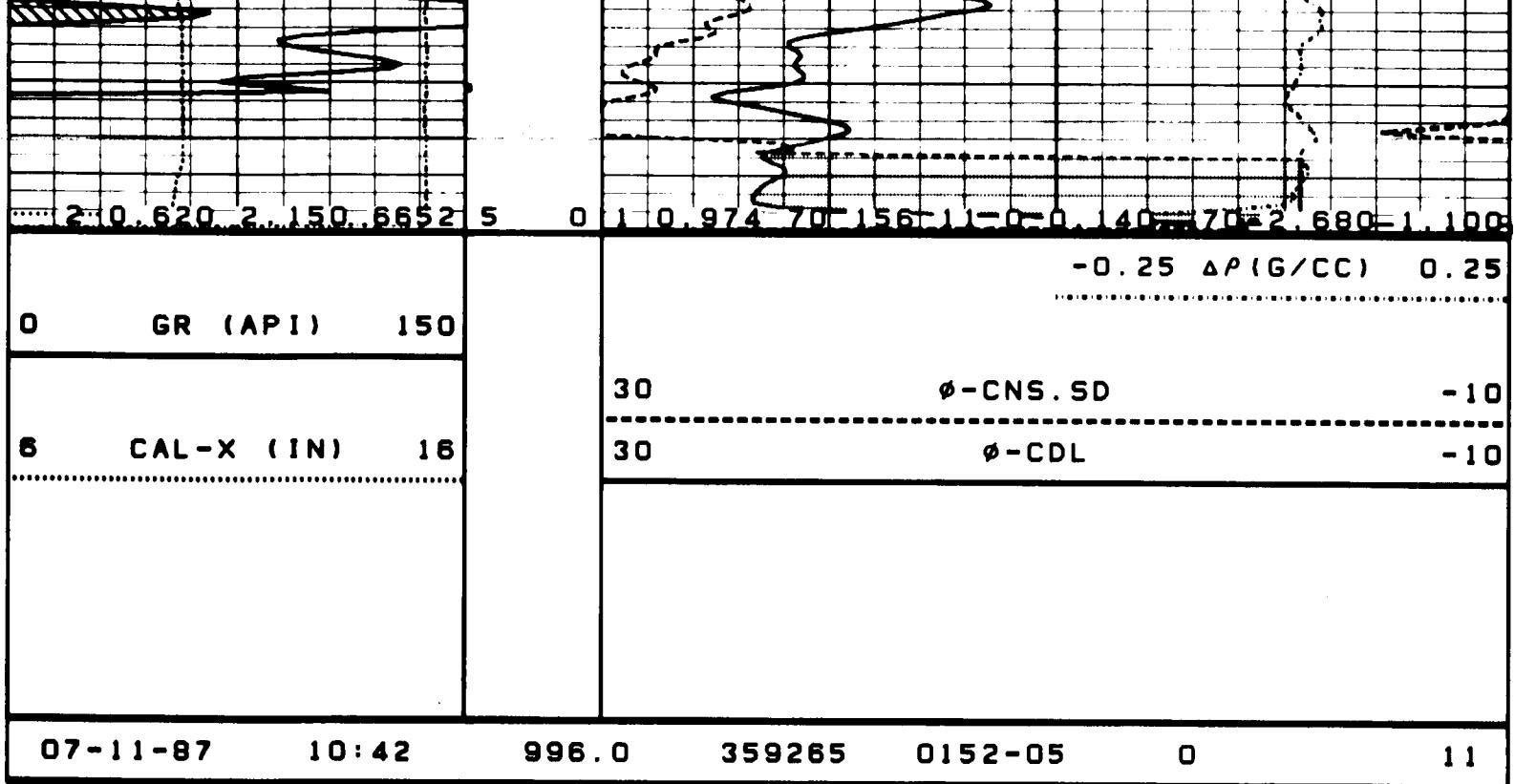


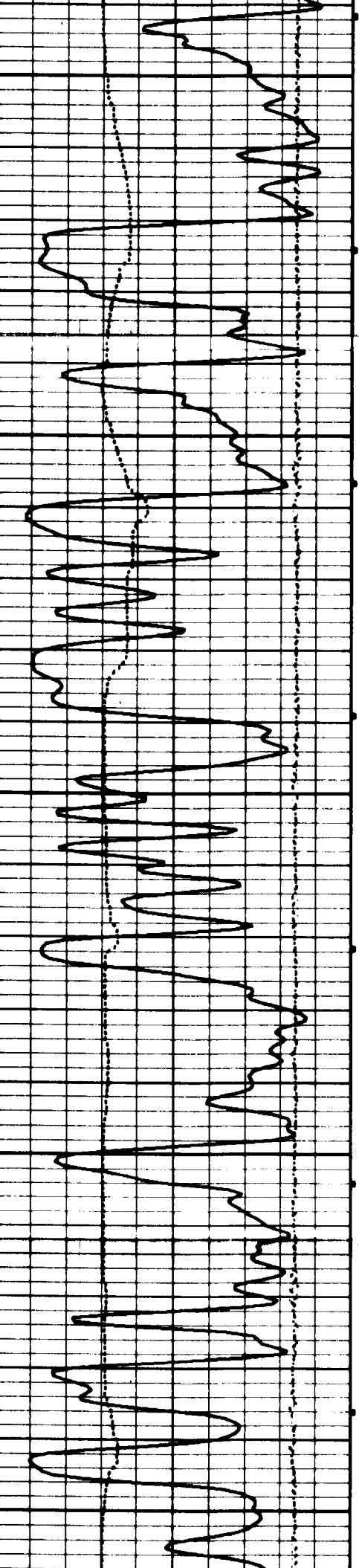


00800



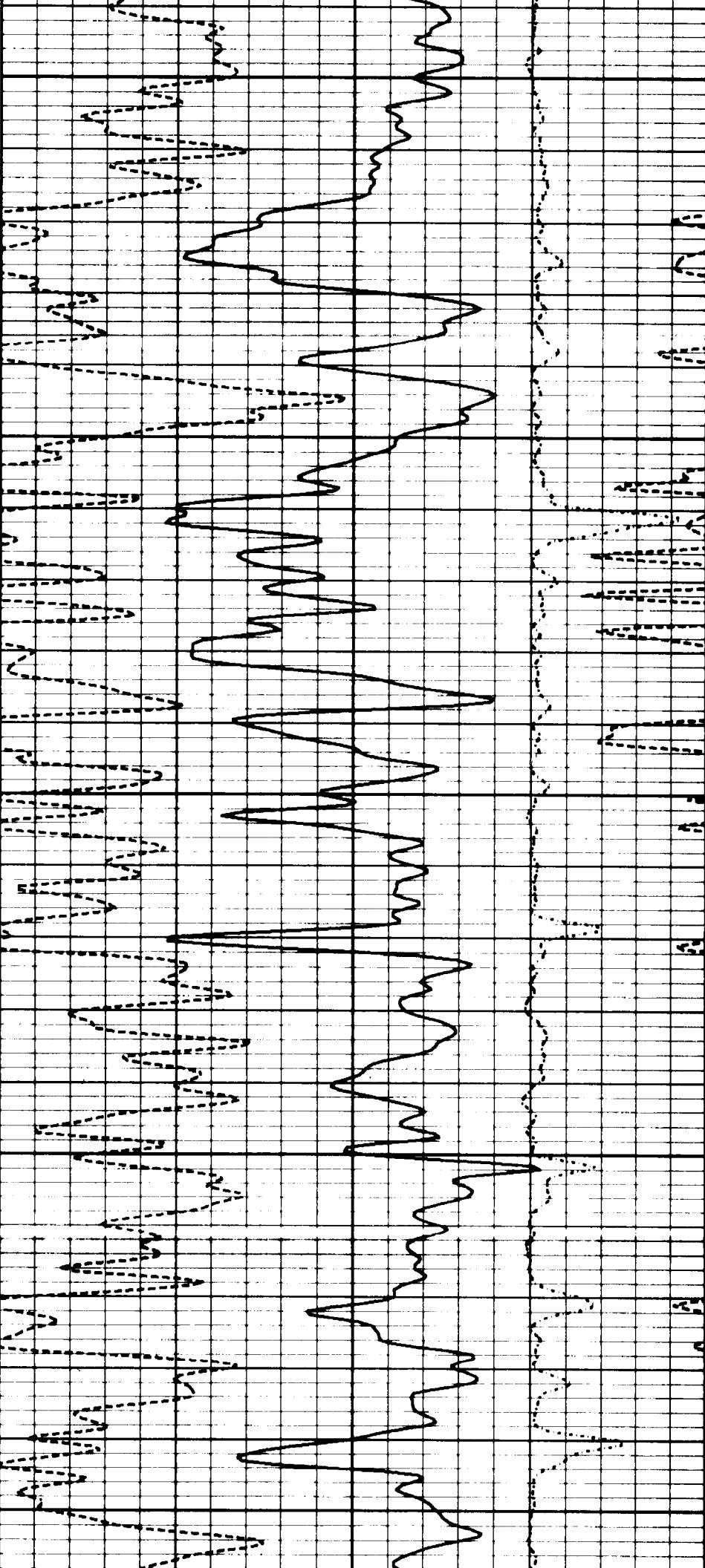
00900

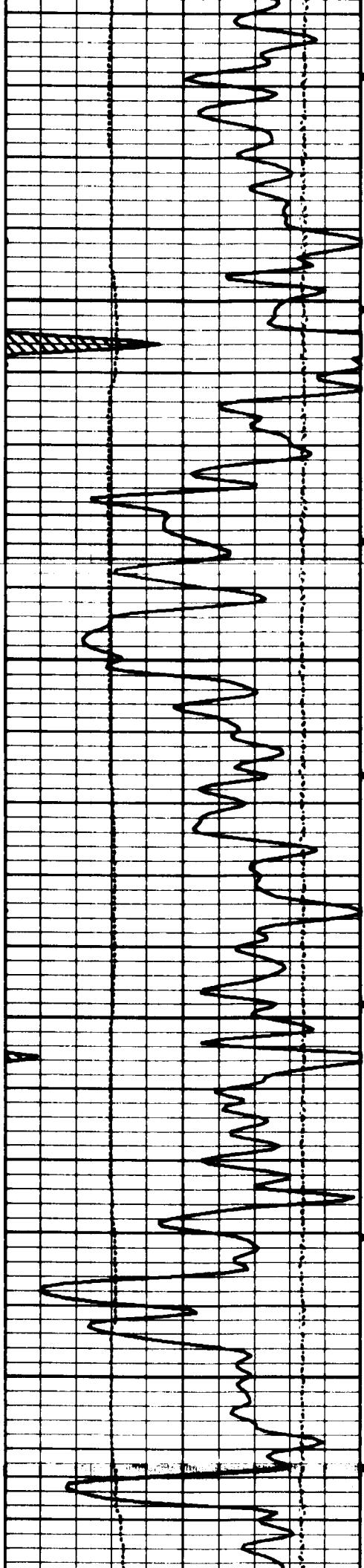




03600

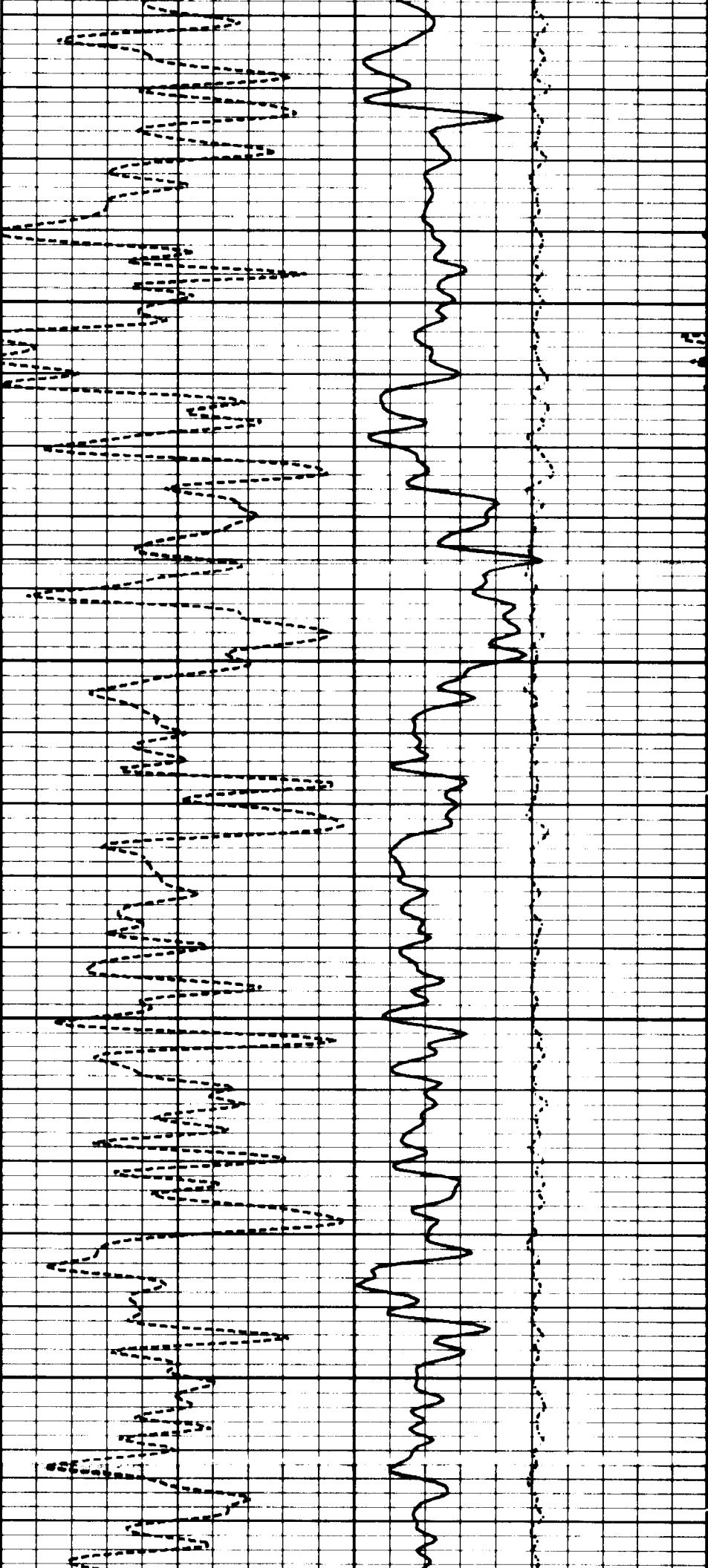
03700

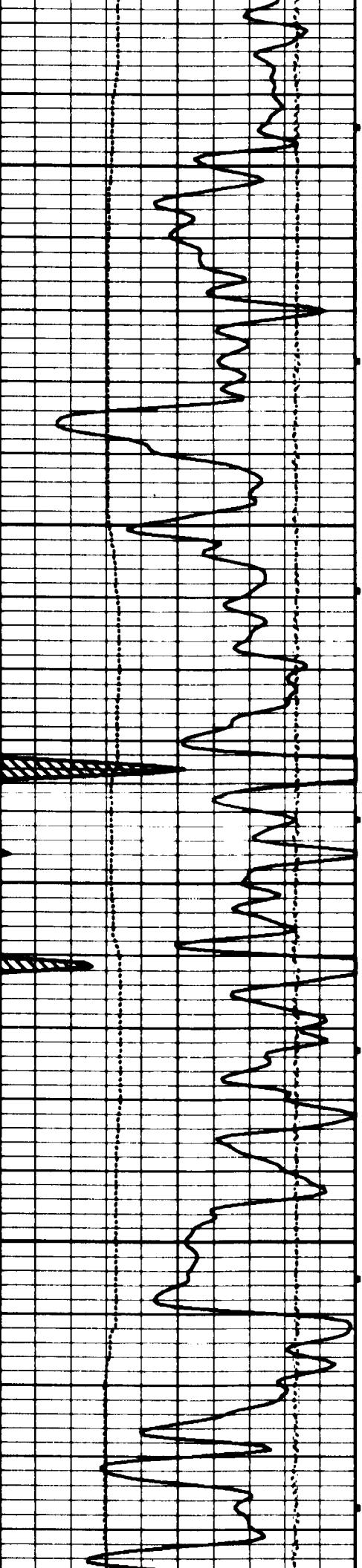




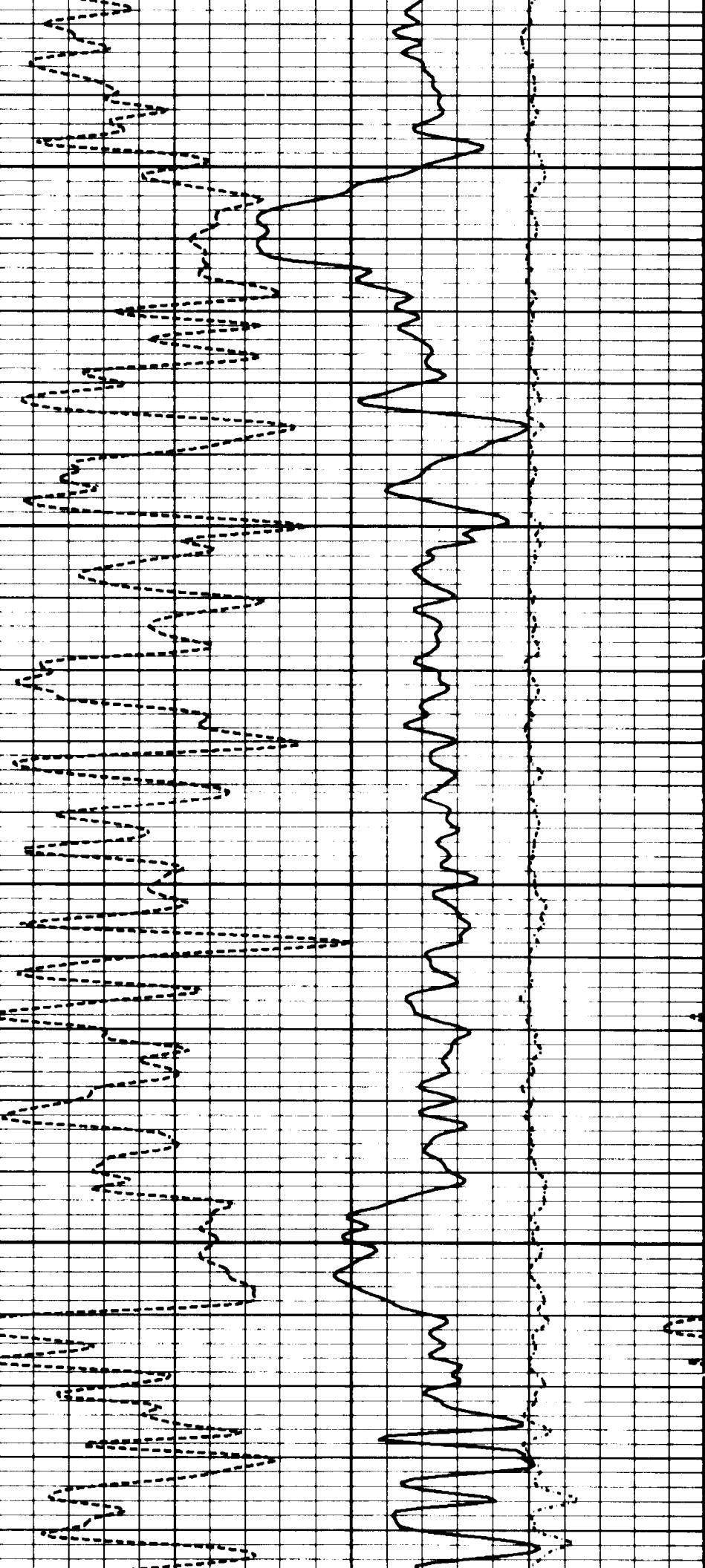
03800

03900

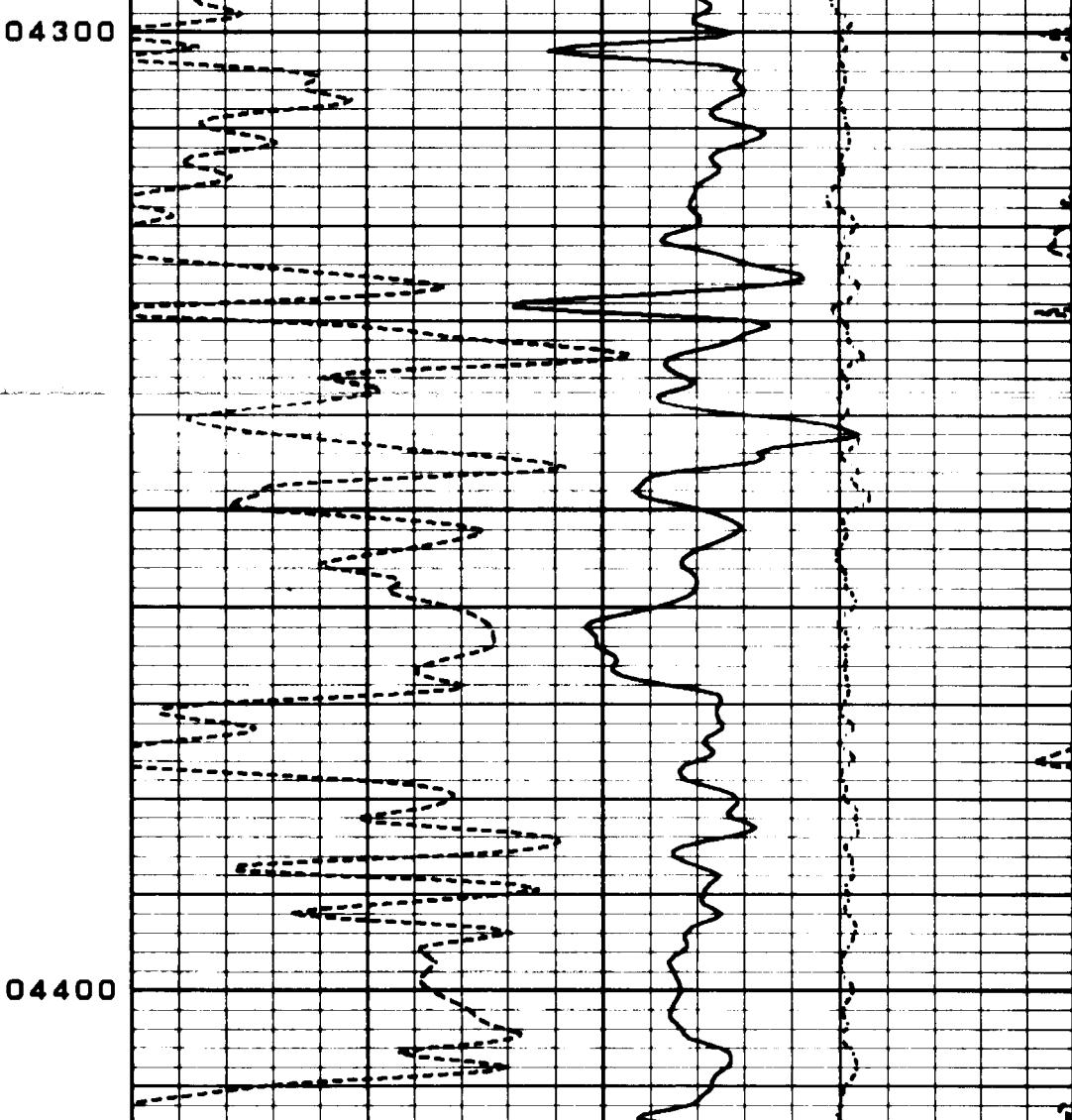
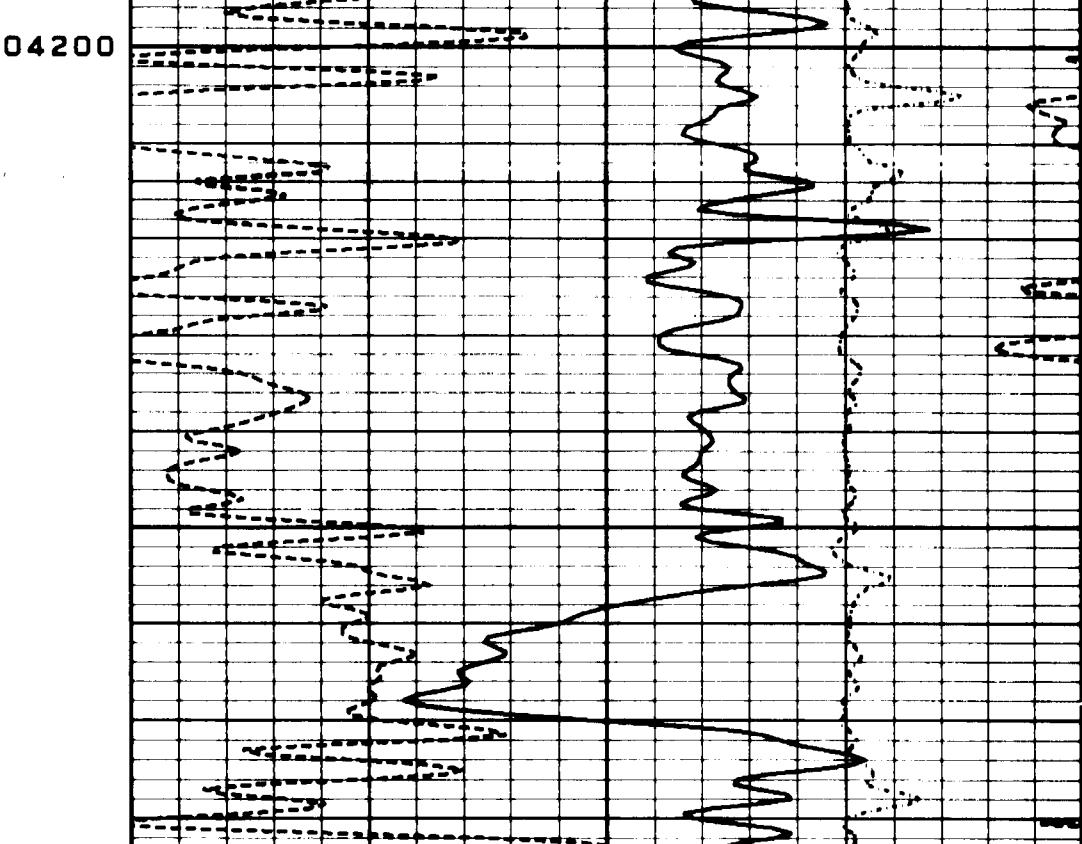
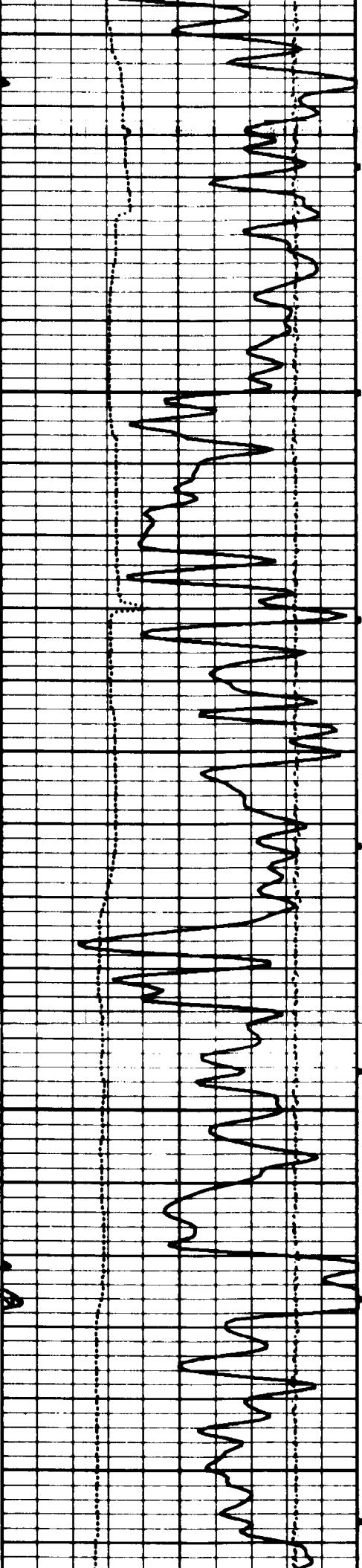


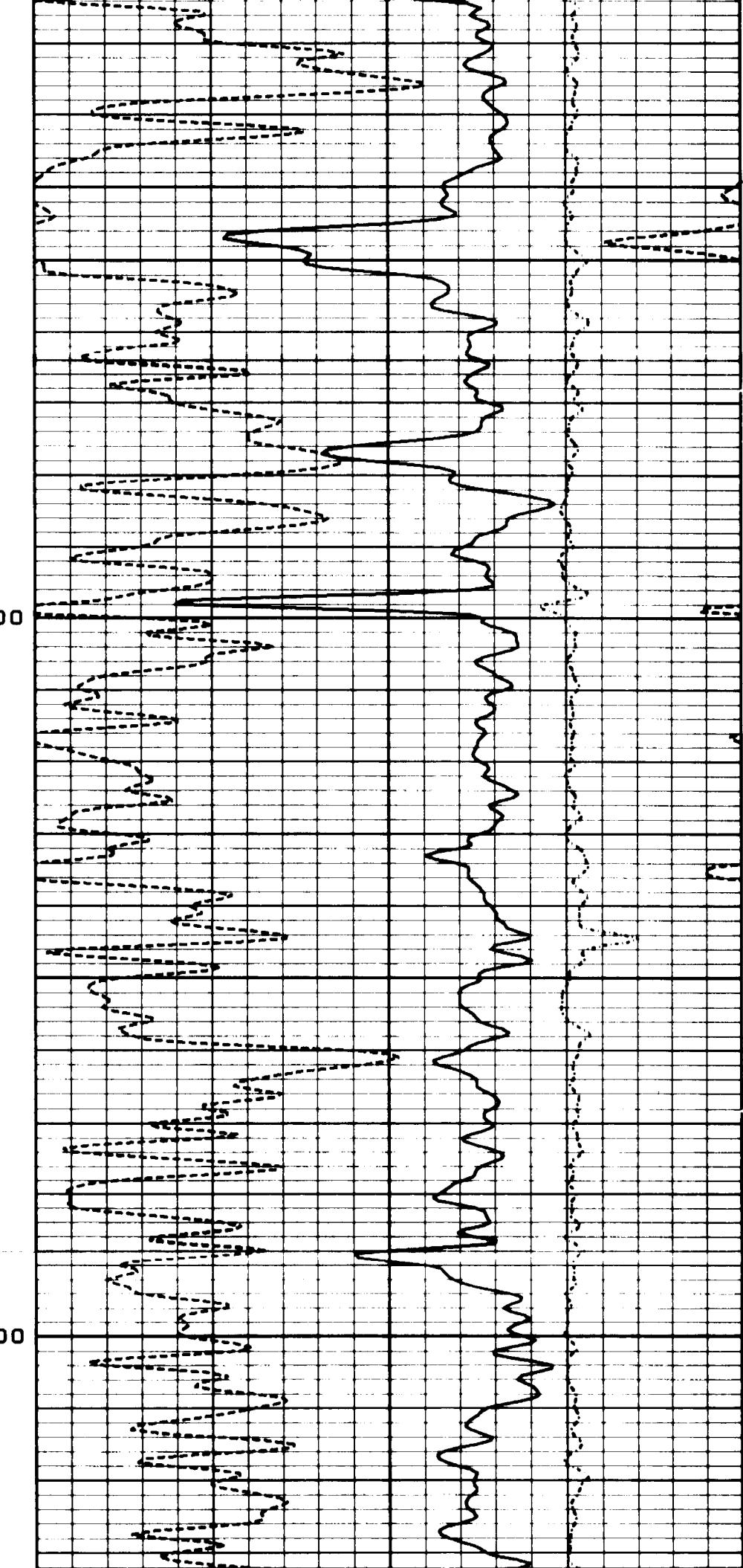
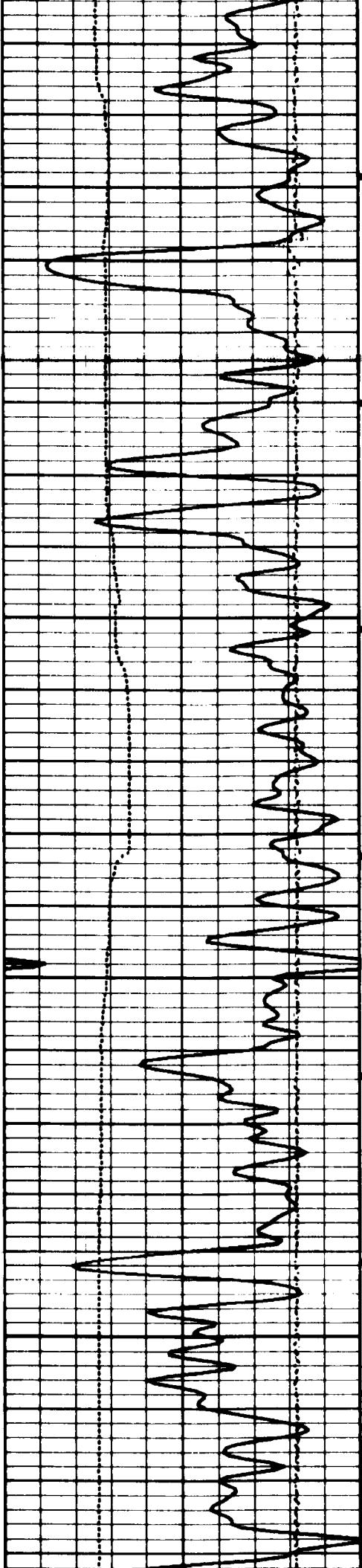


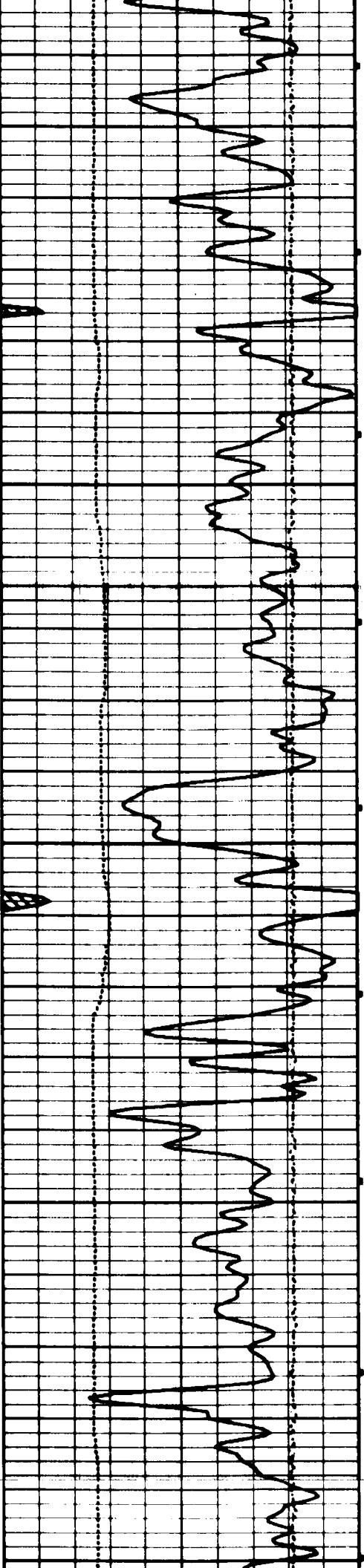
04000



04100

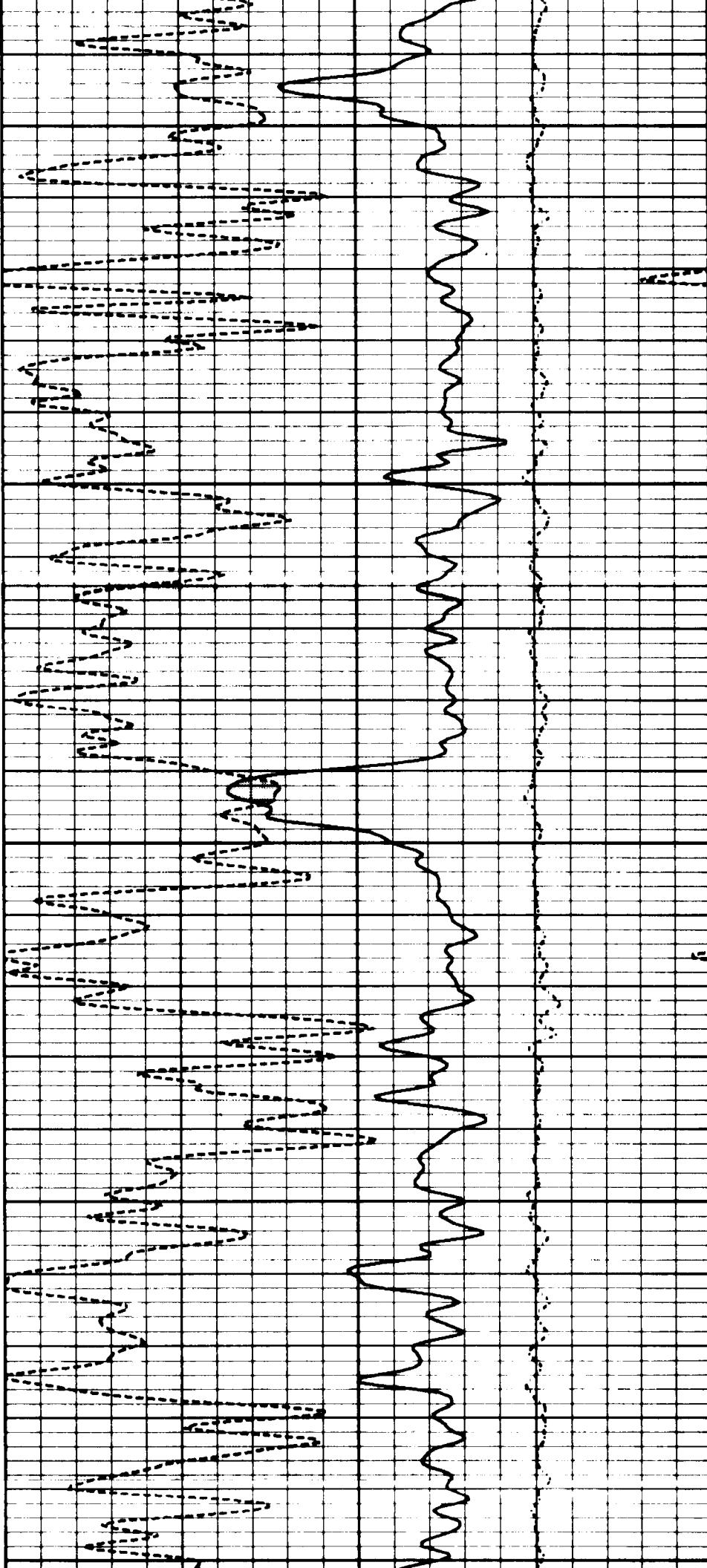


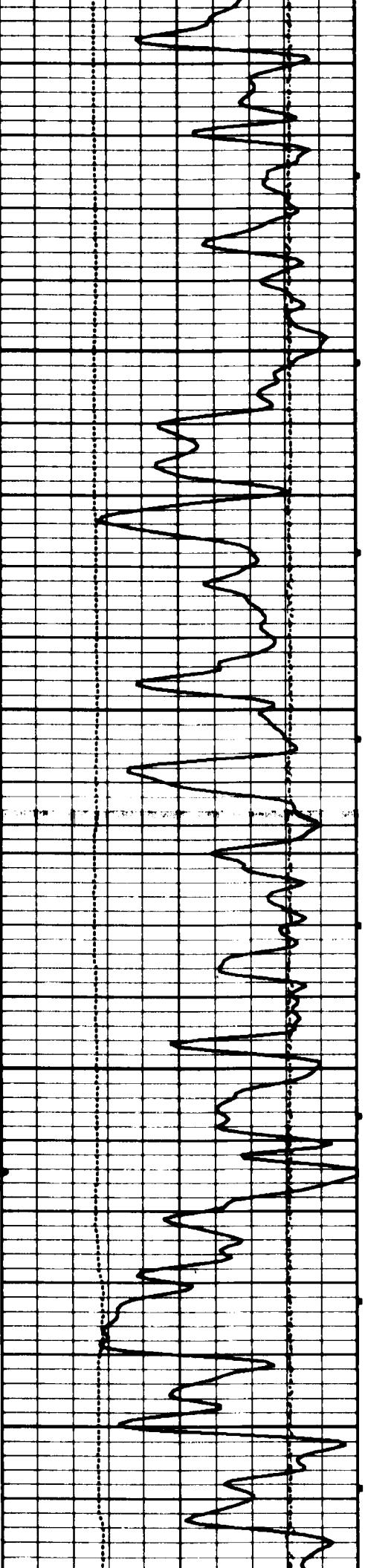




04700

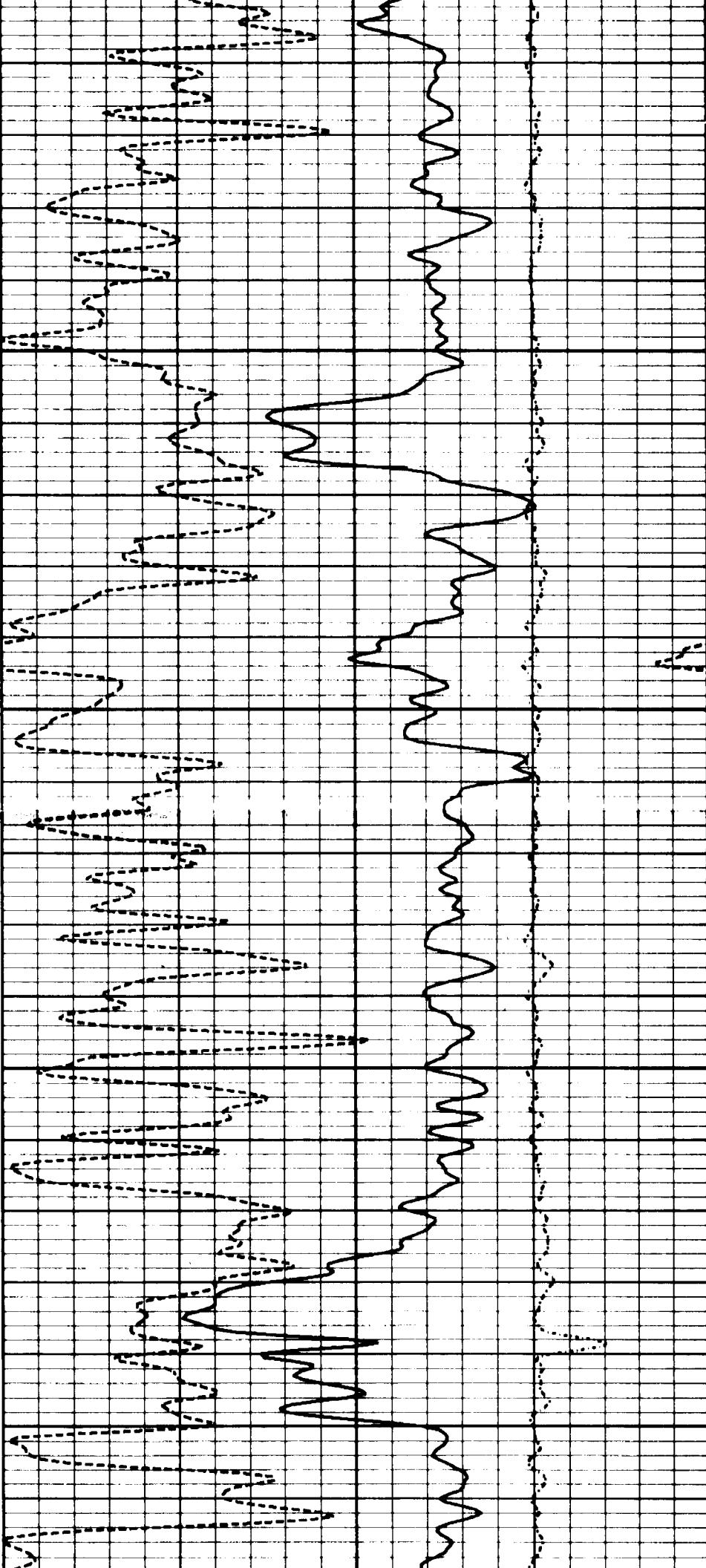
04800

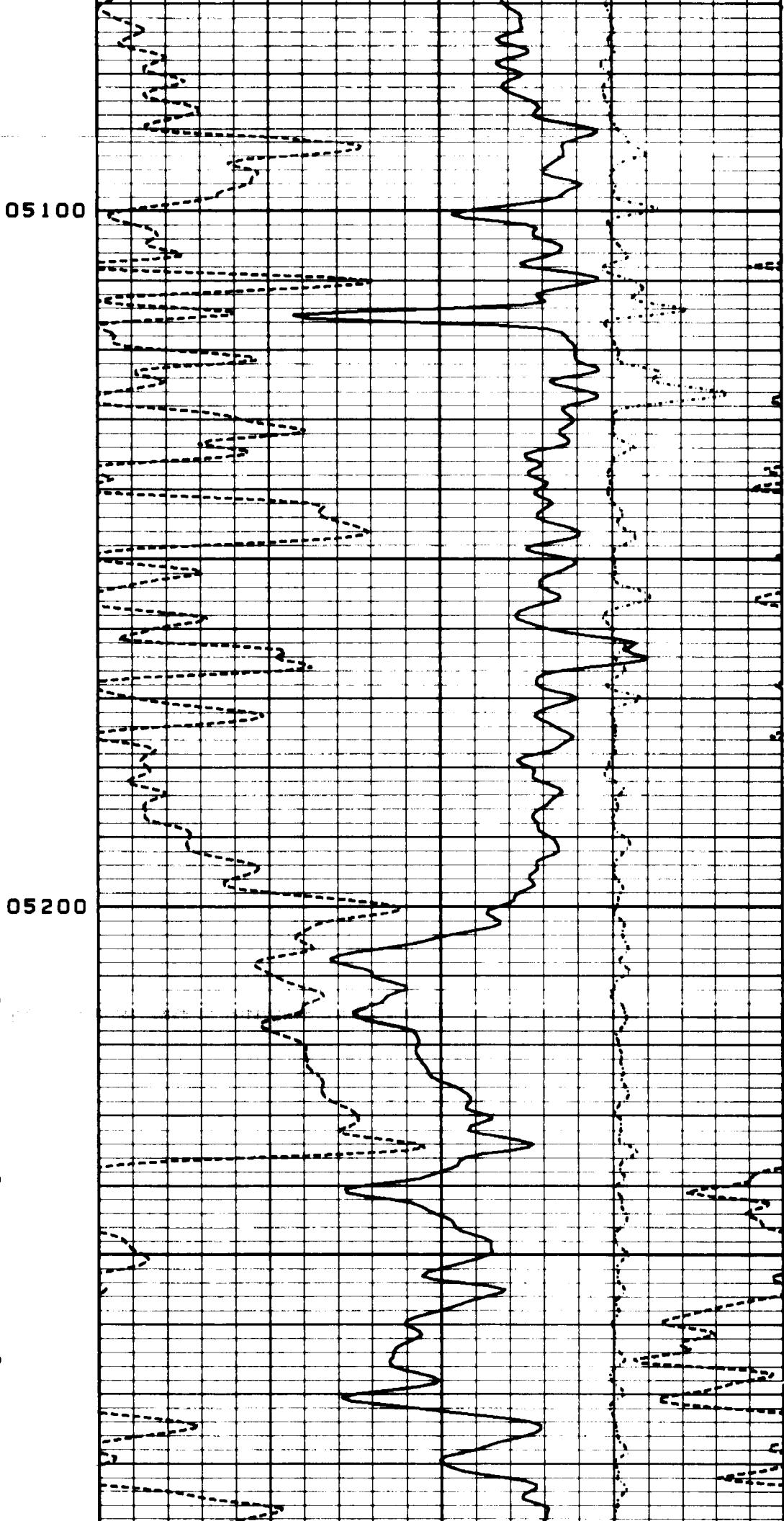
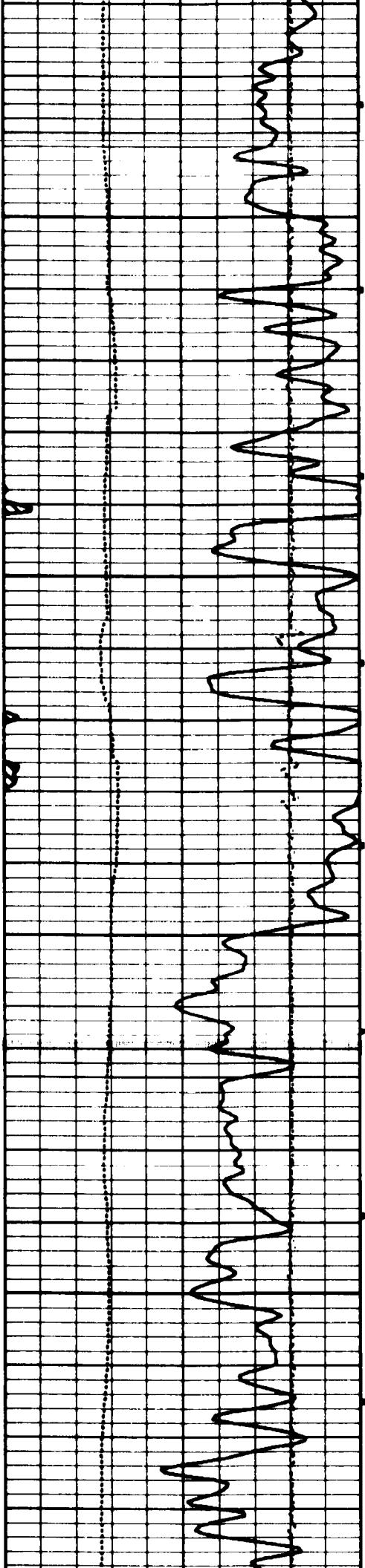


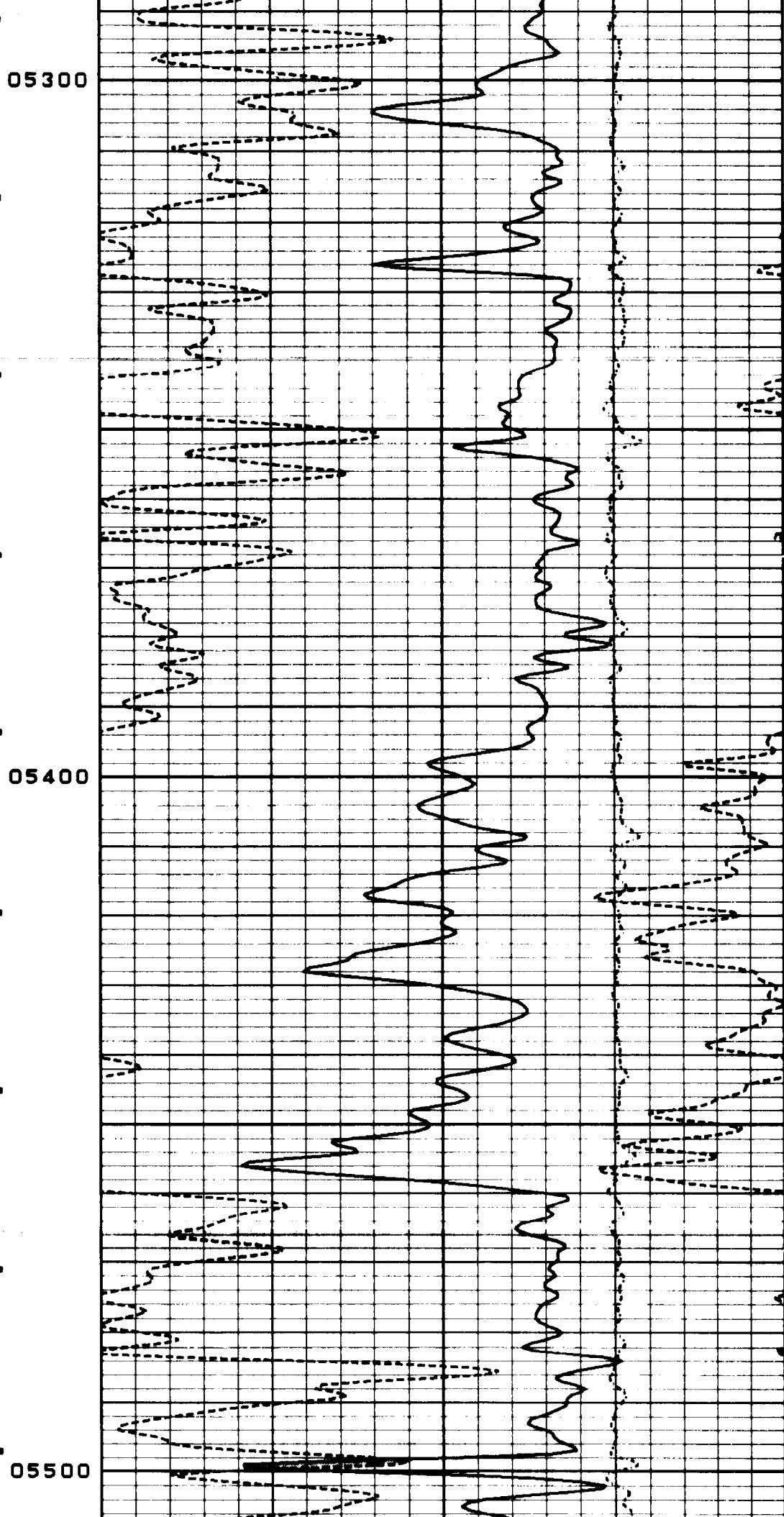
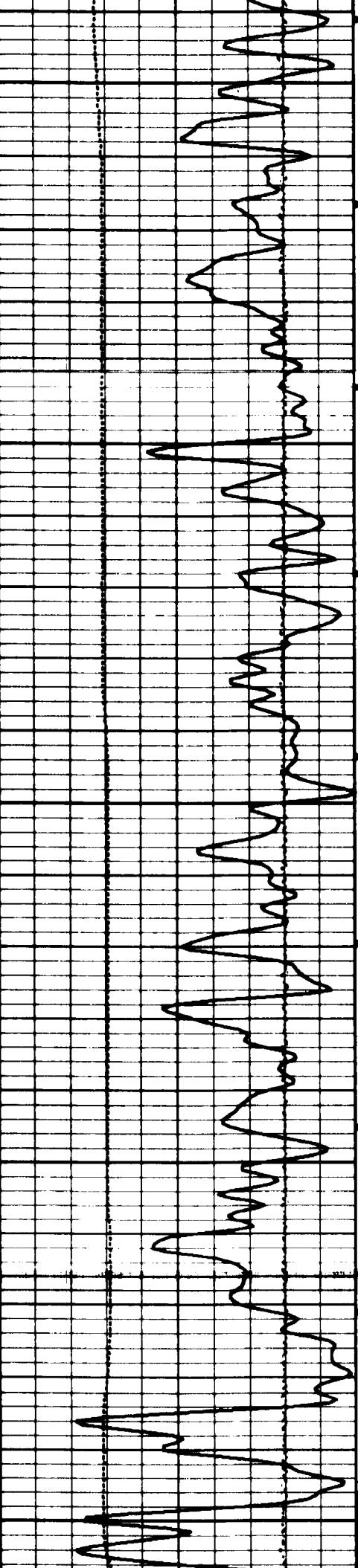


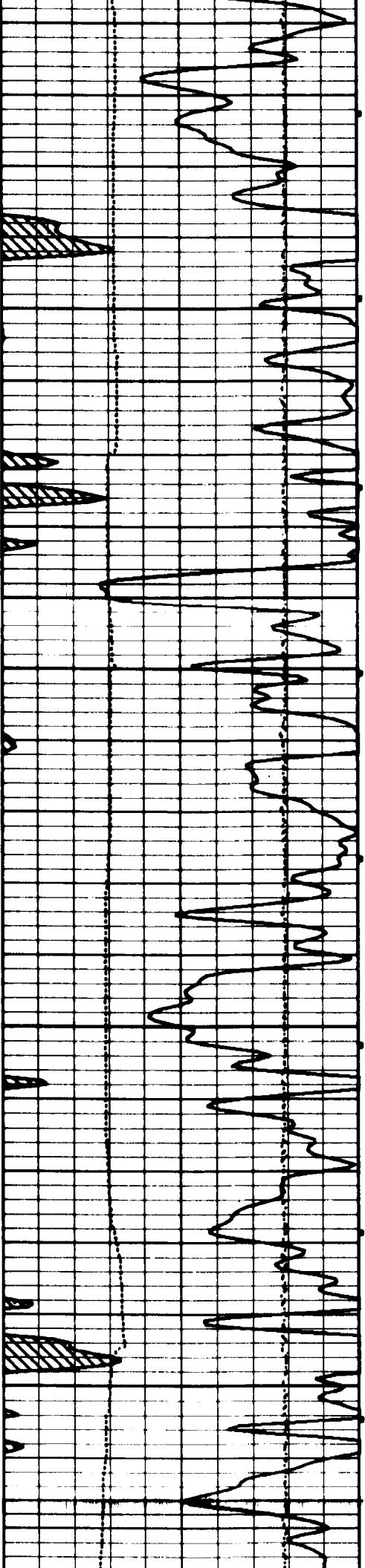
04900

05000

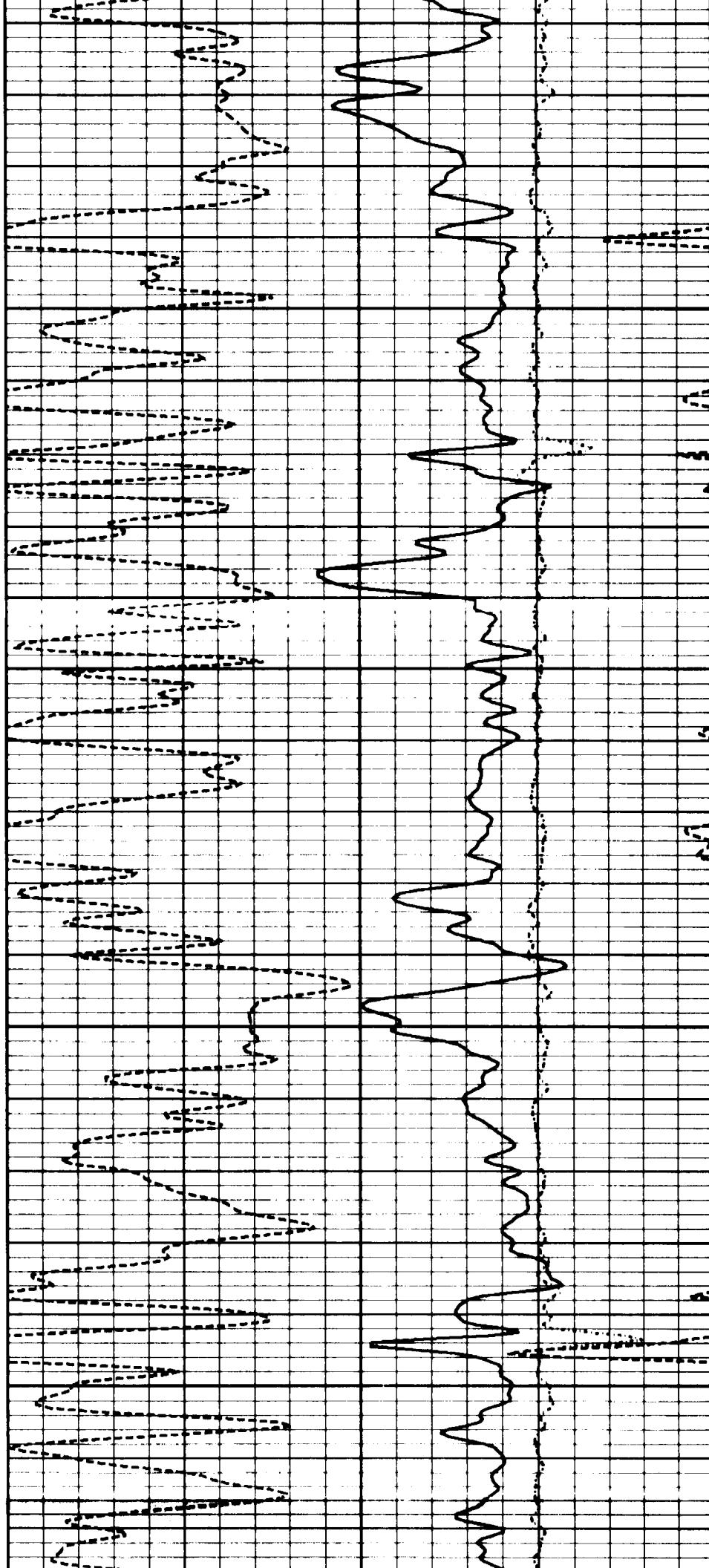




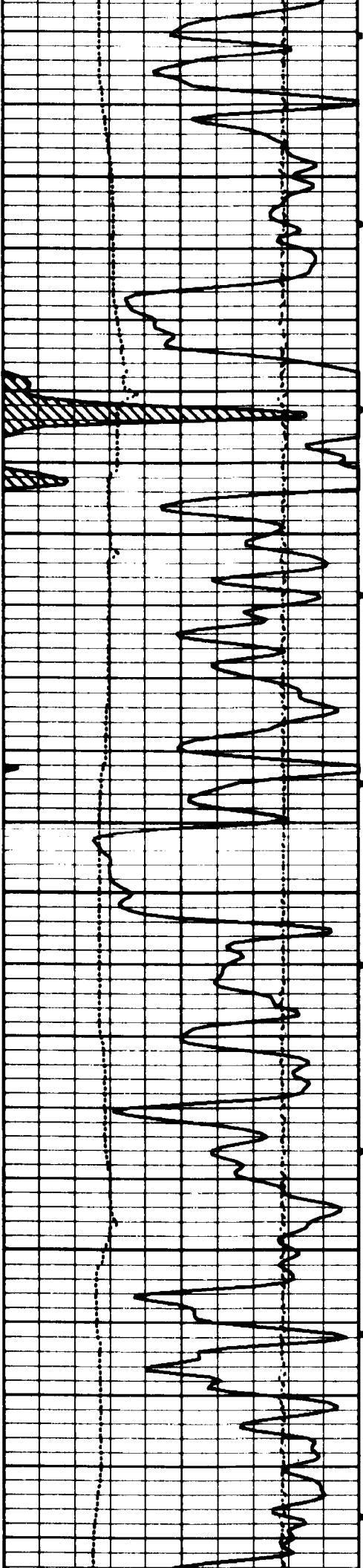




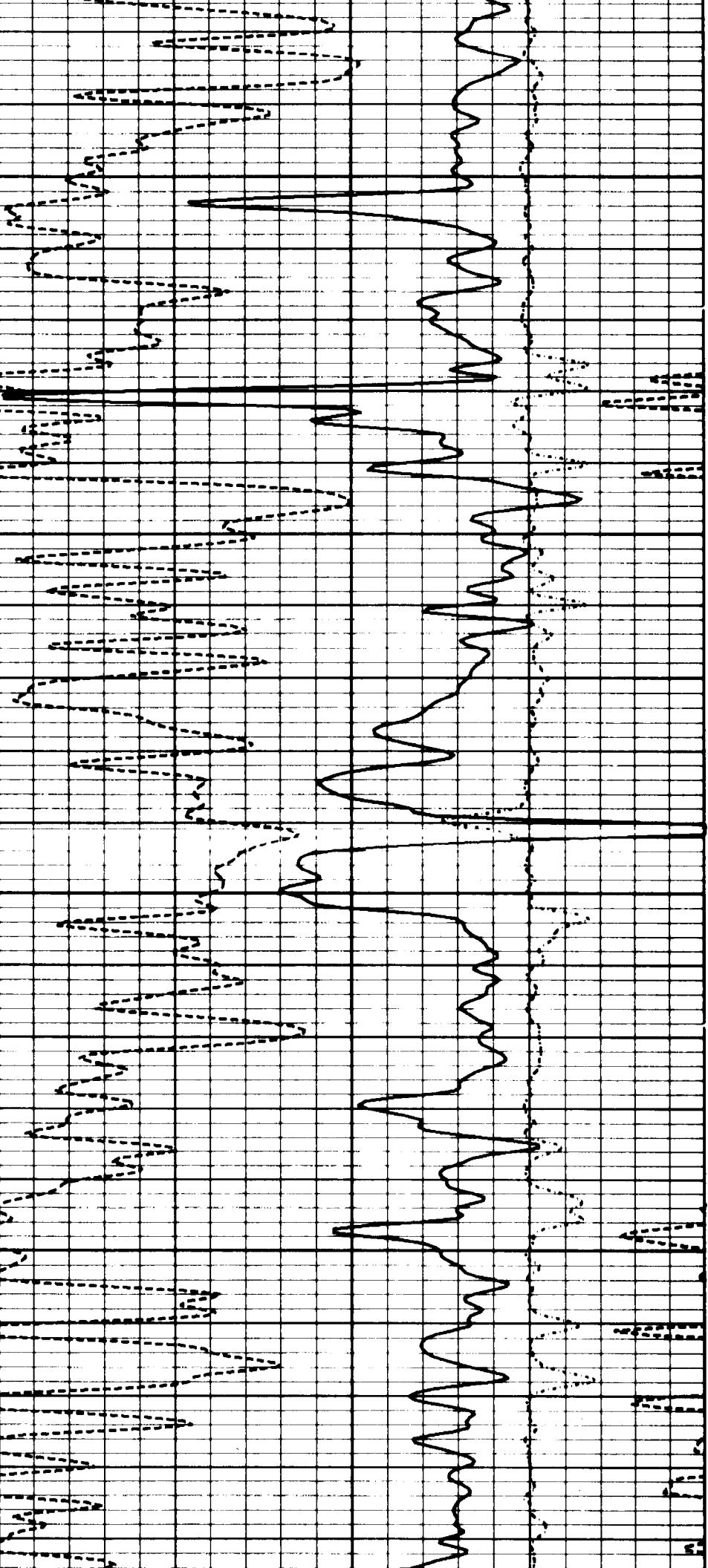
05600



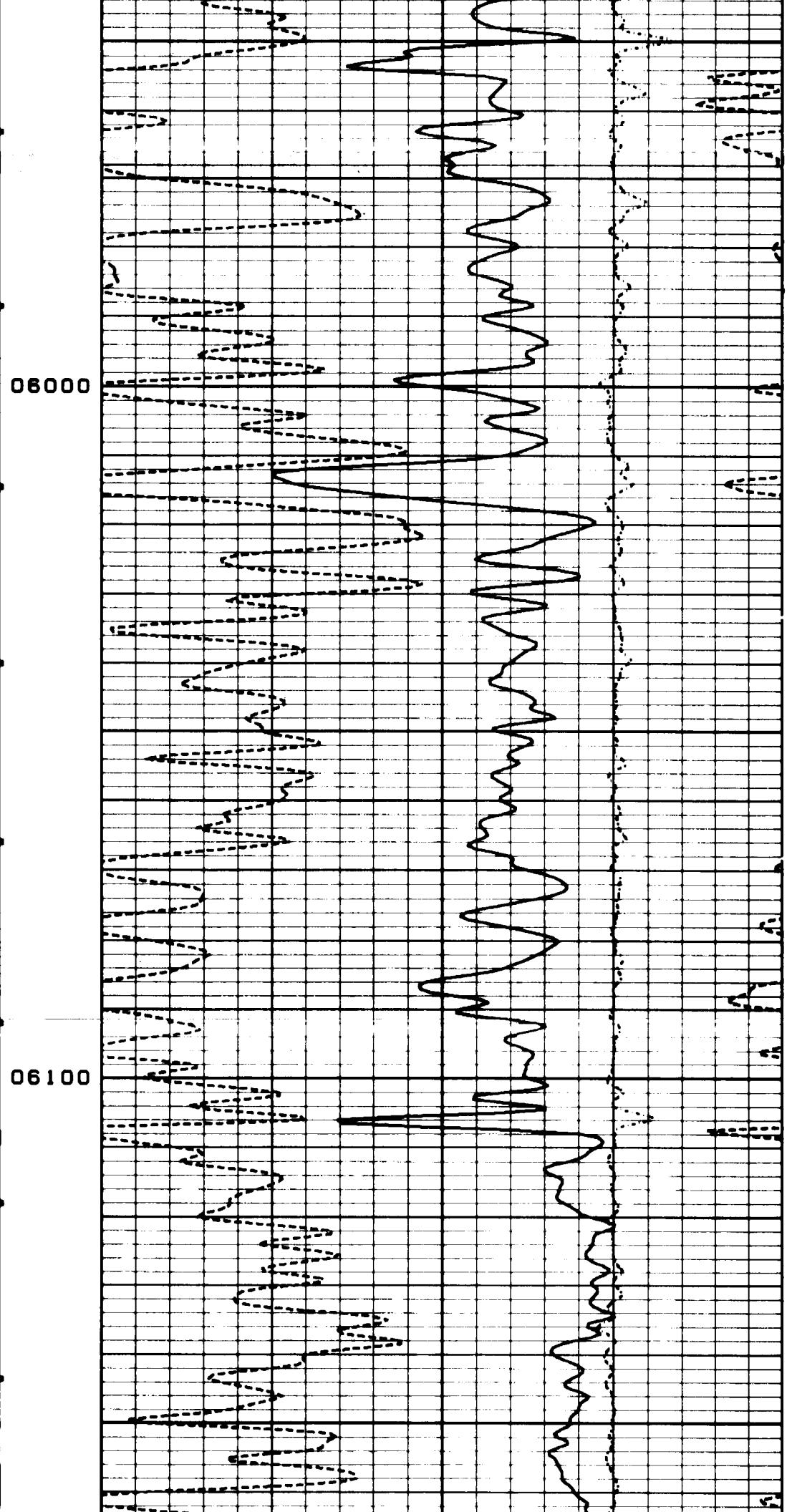
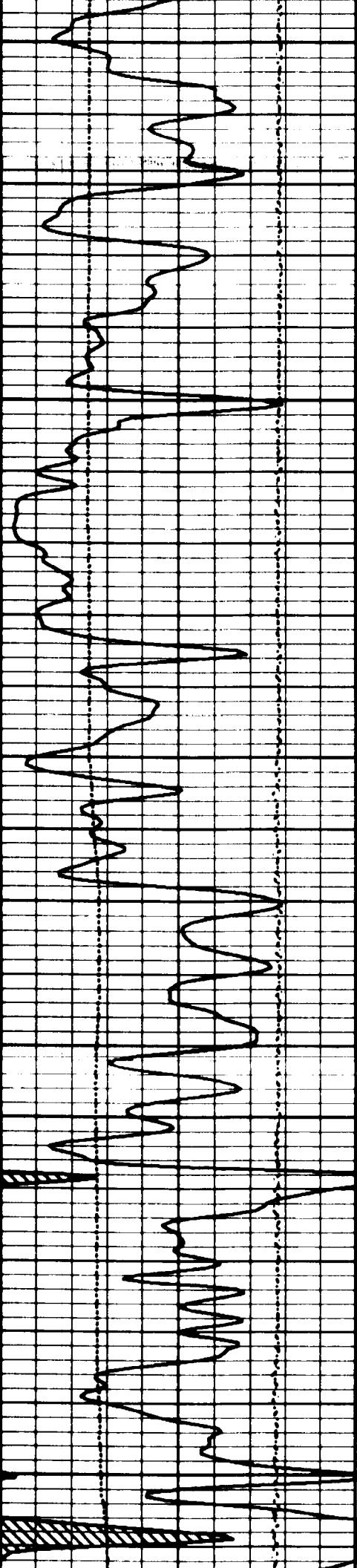
05700

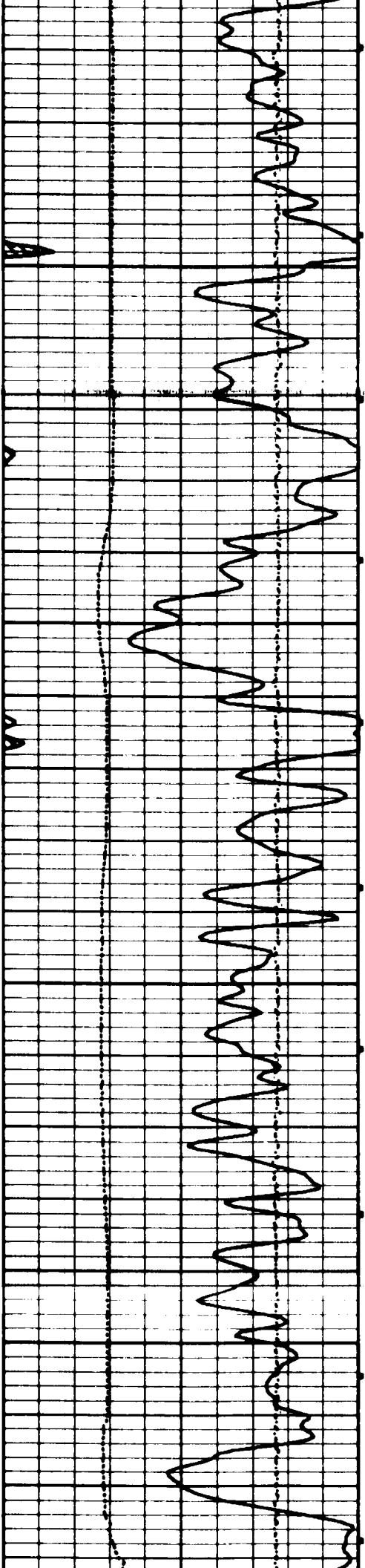


05800

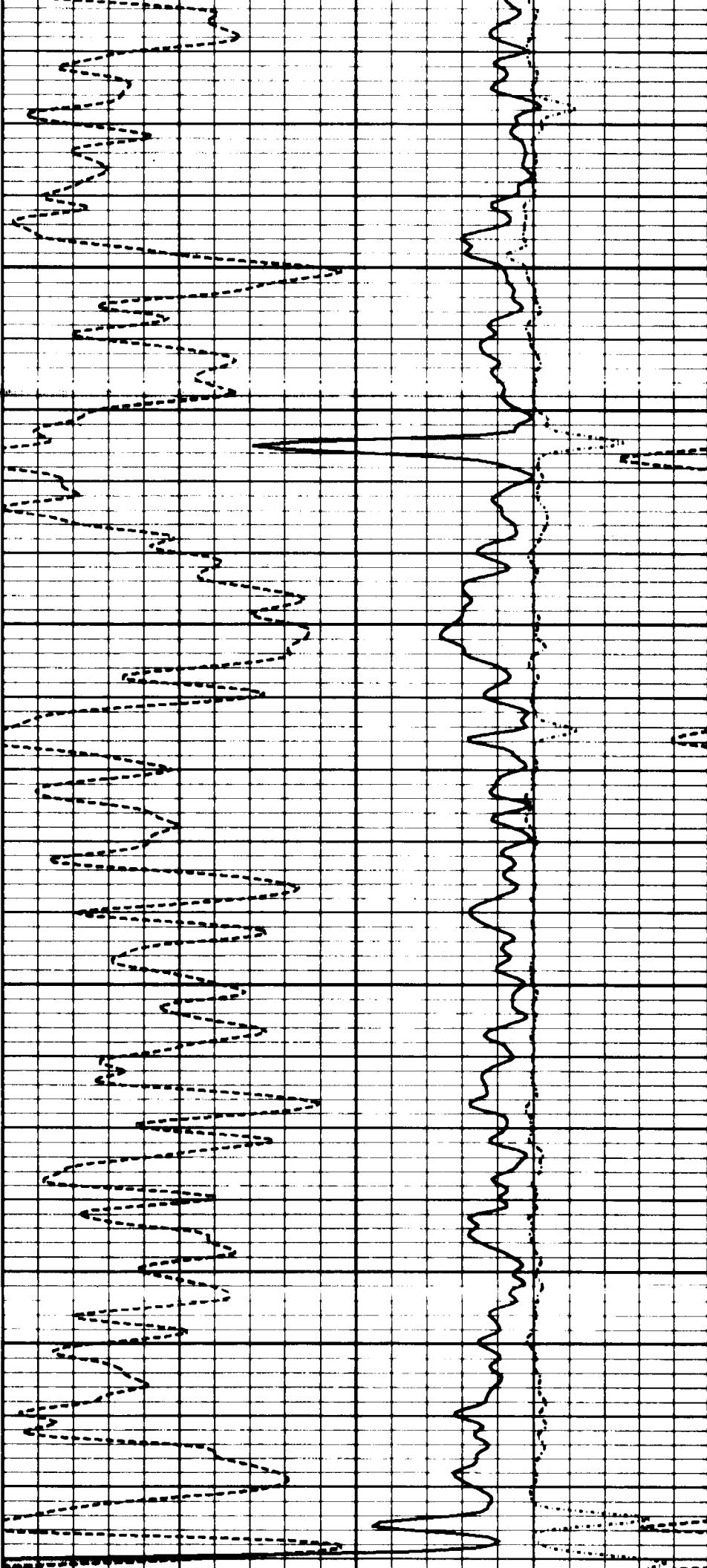


05900

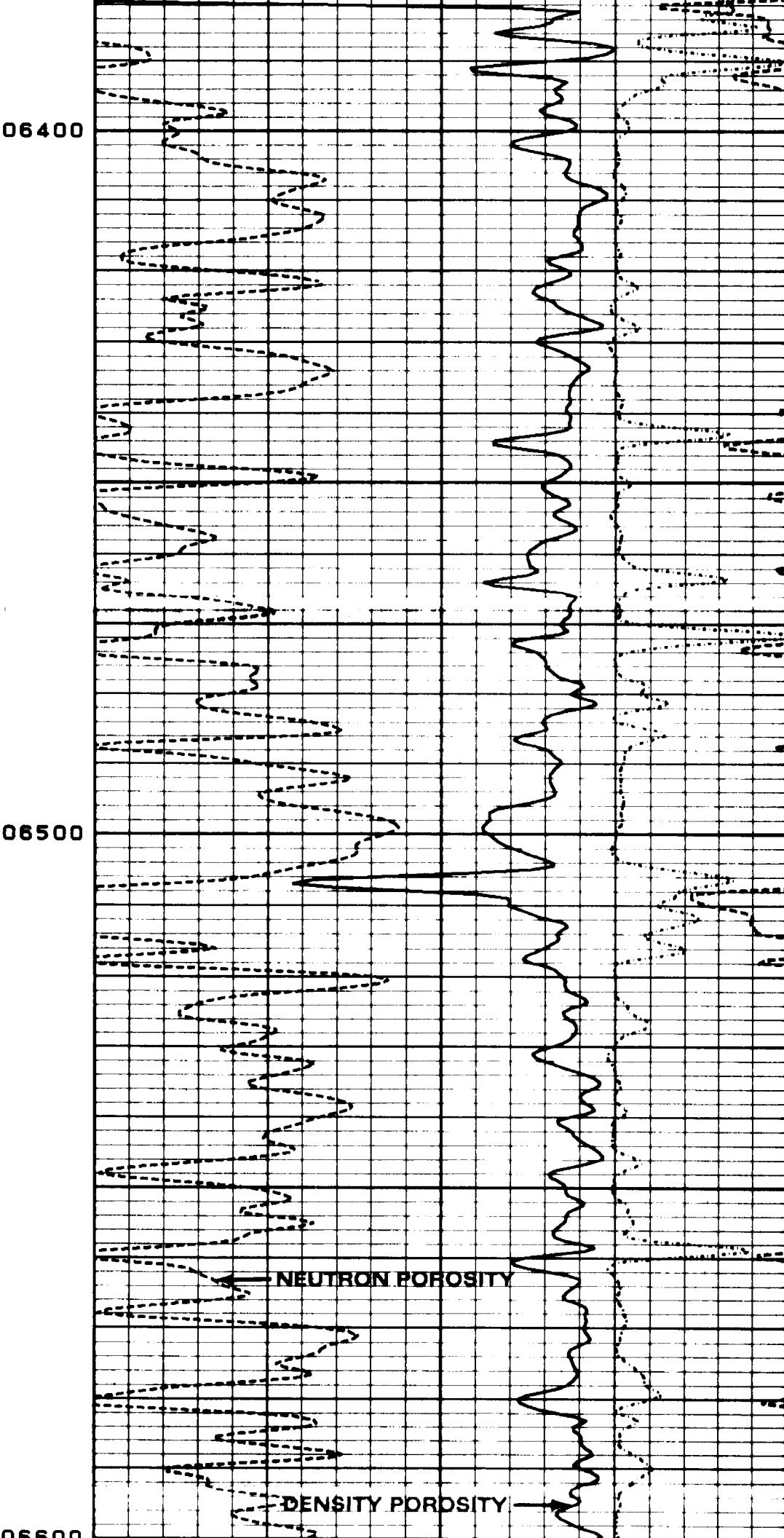
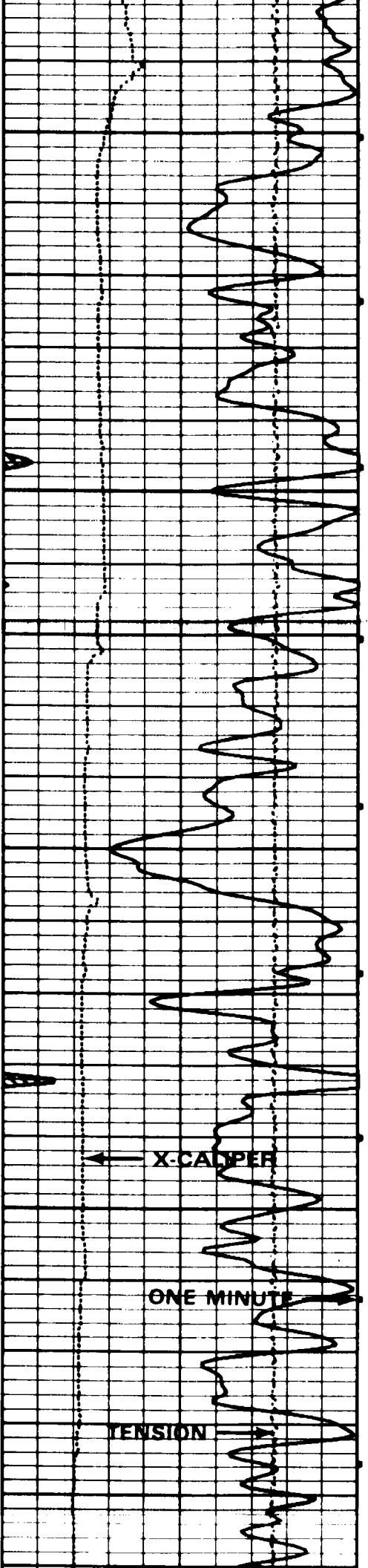


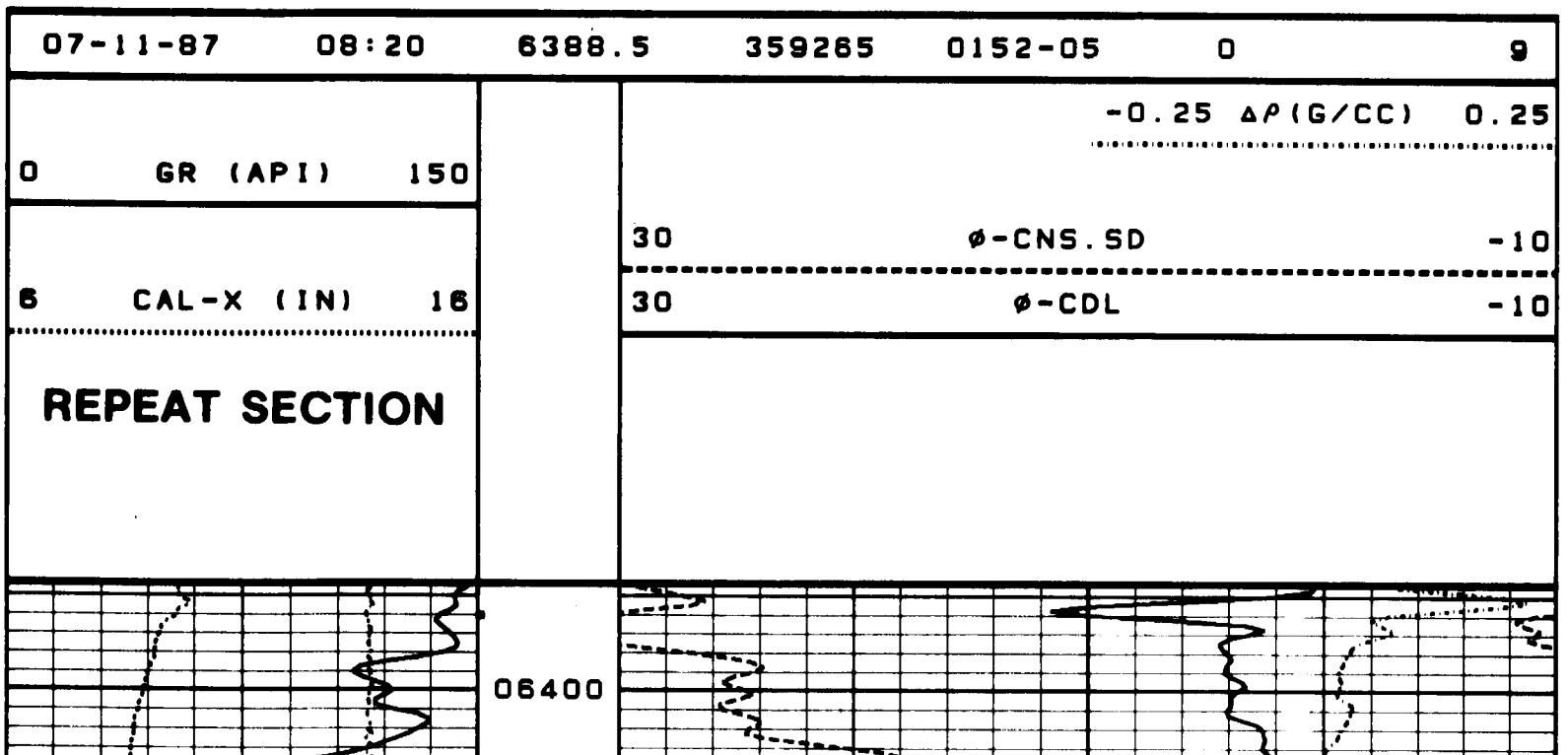
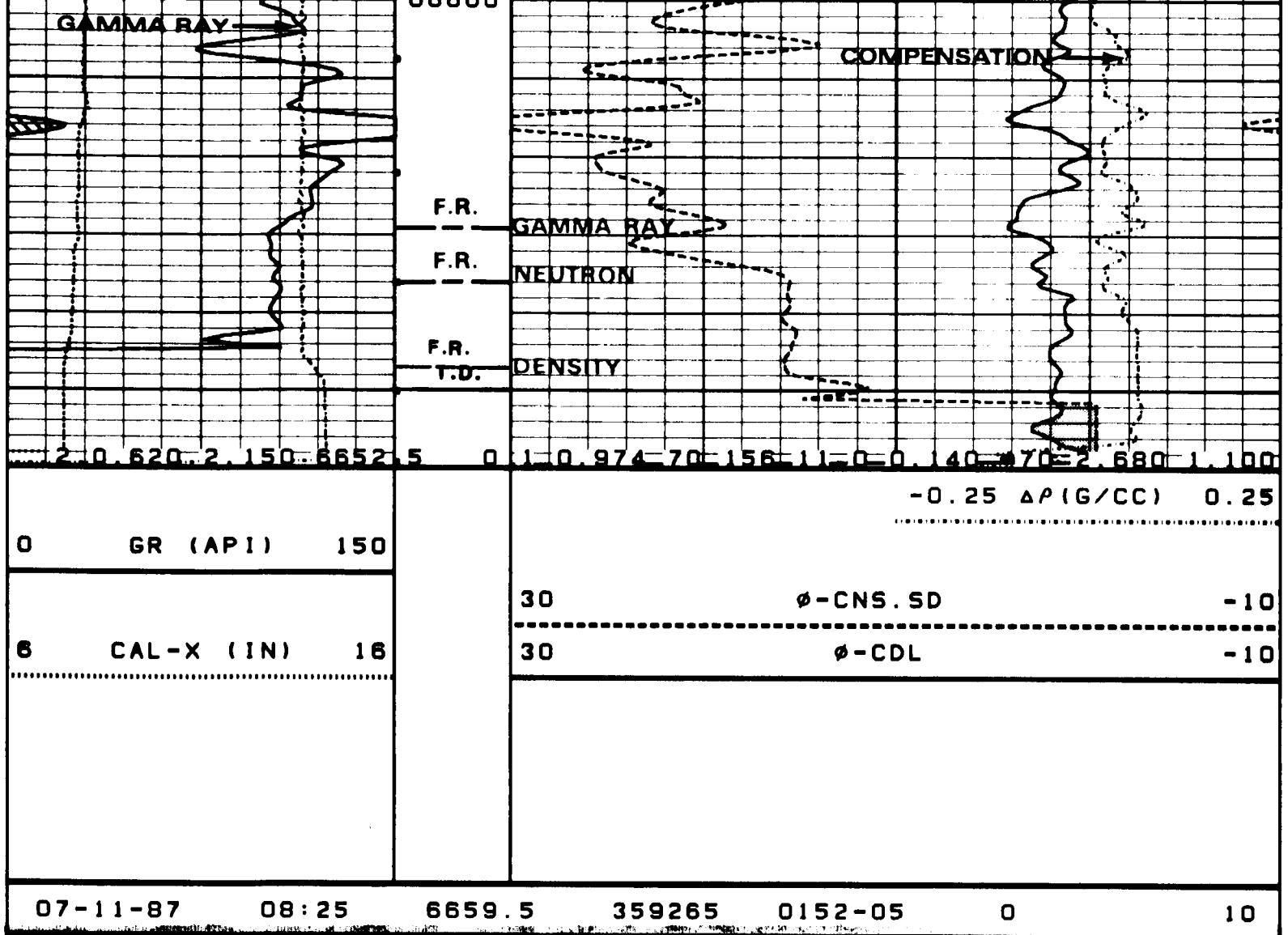


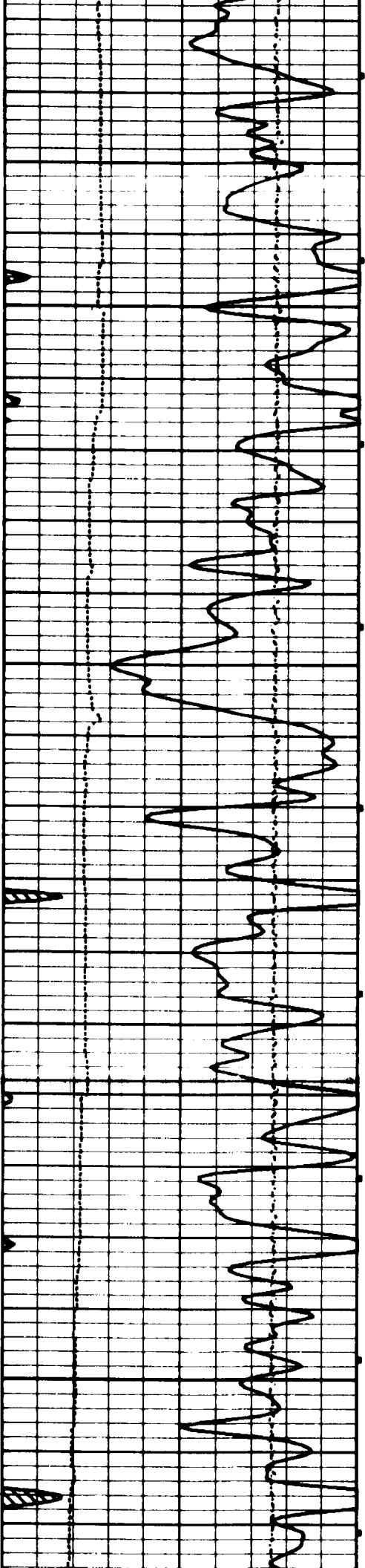
06200



06300

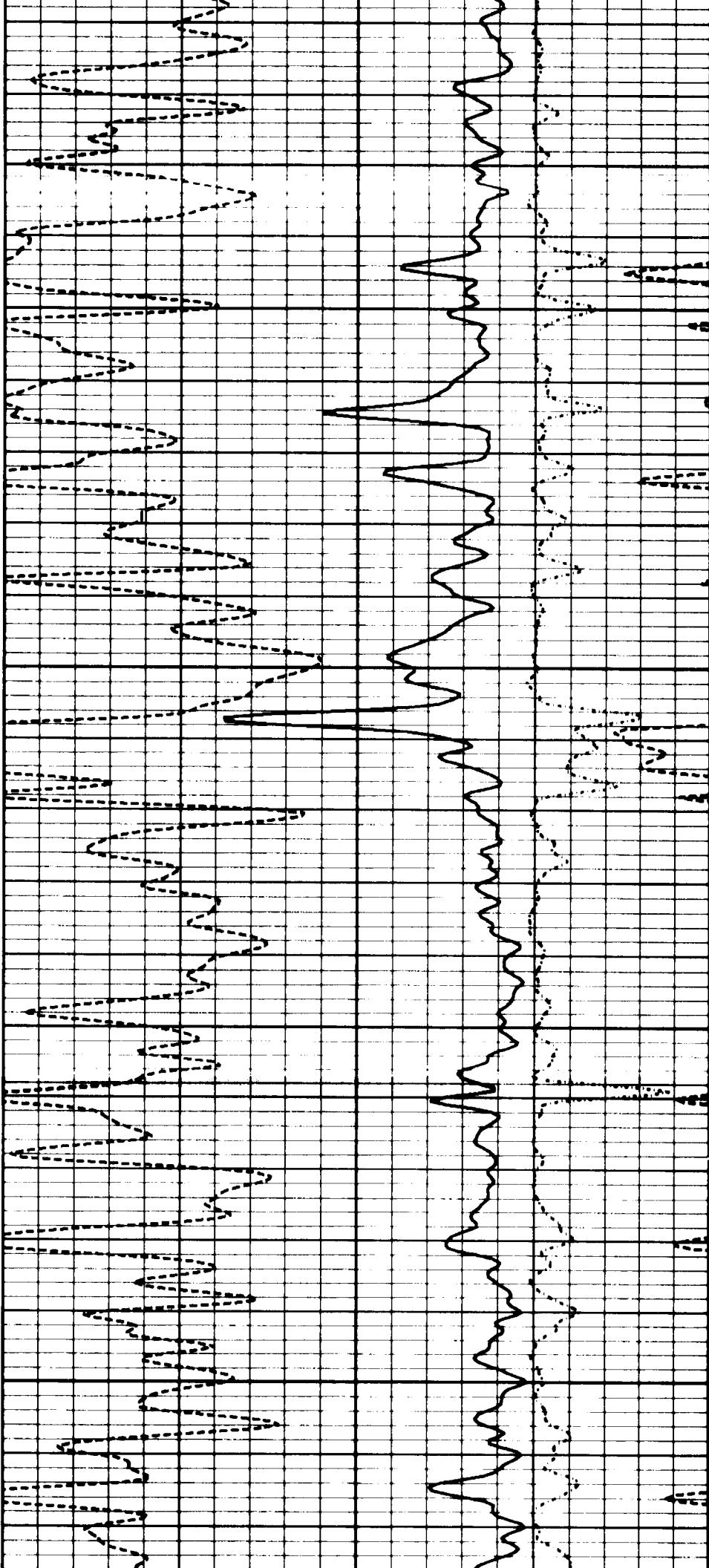


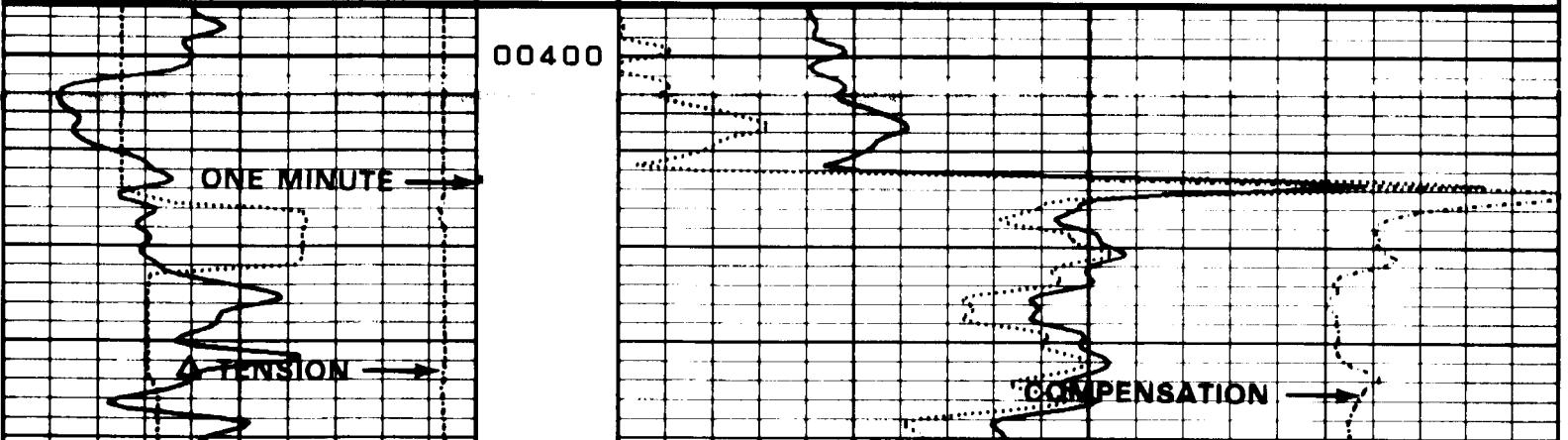
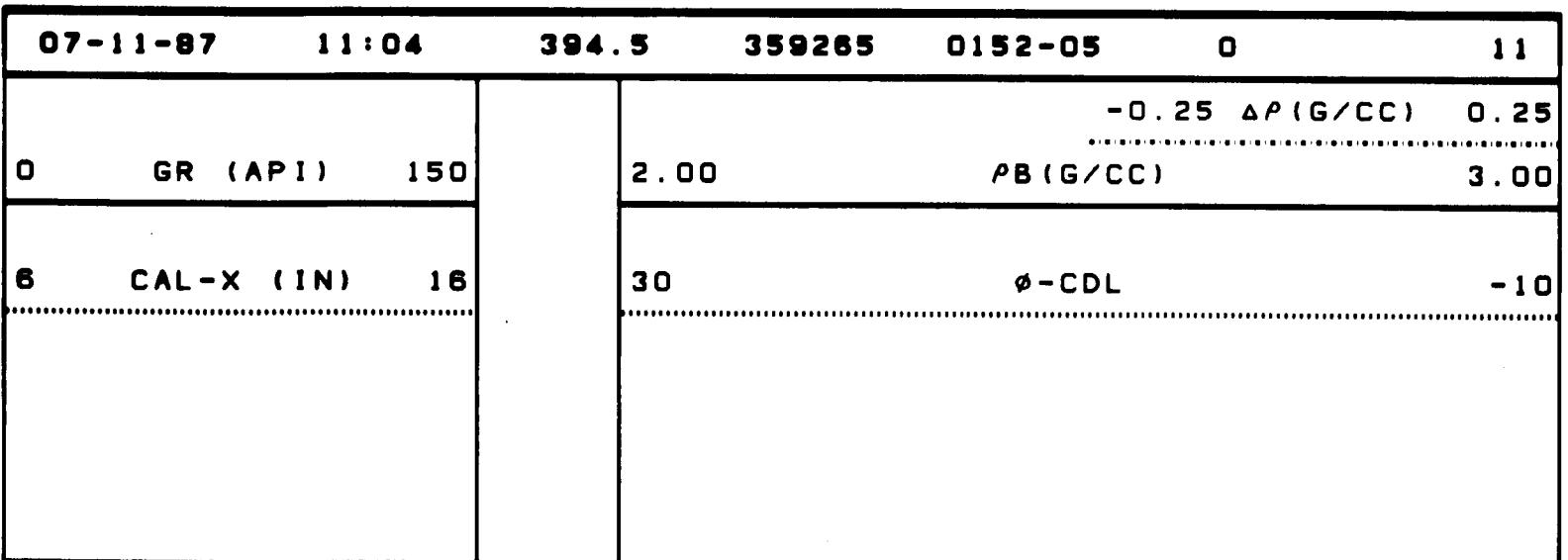
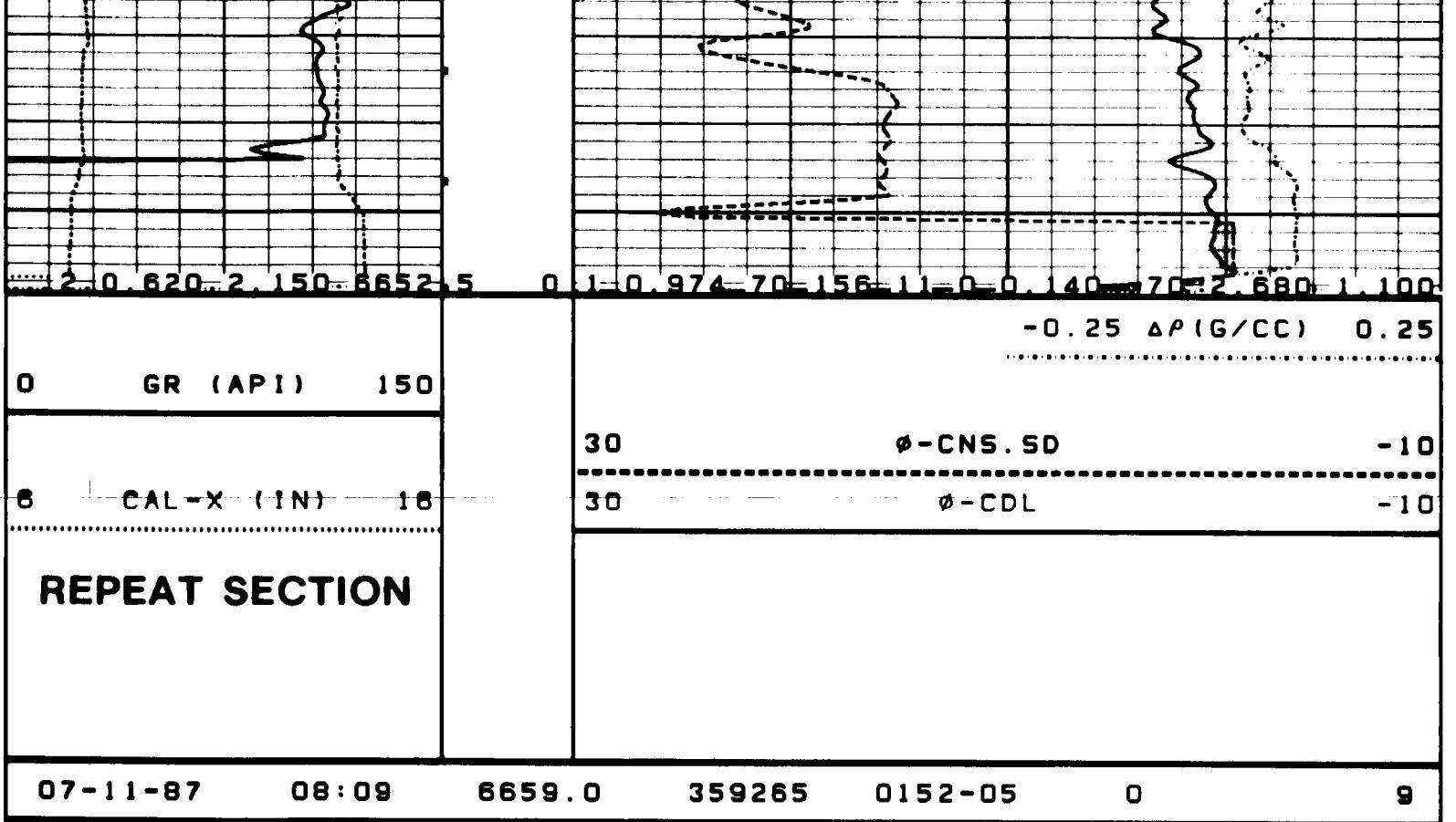


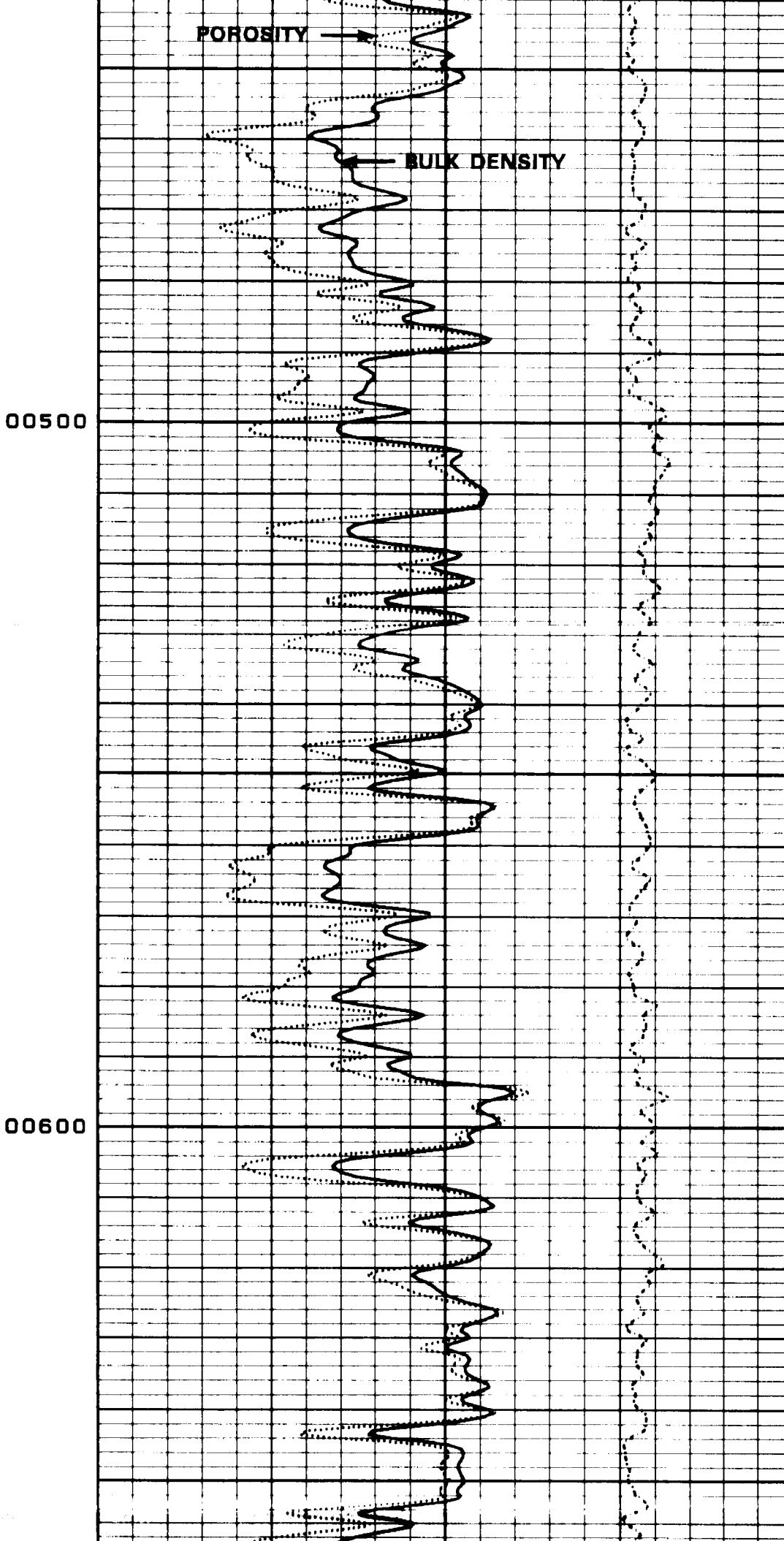
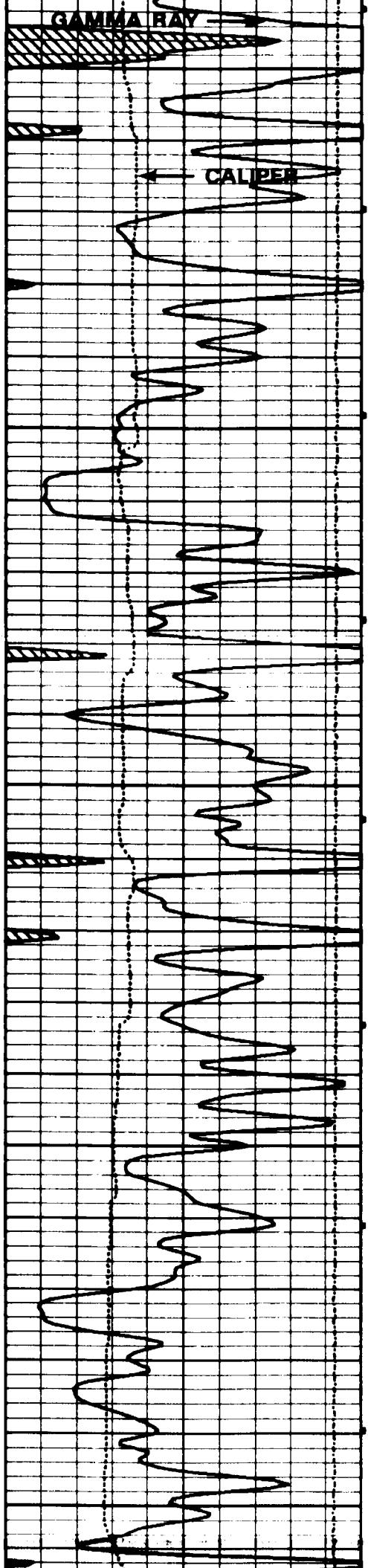


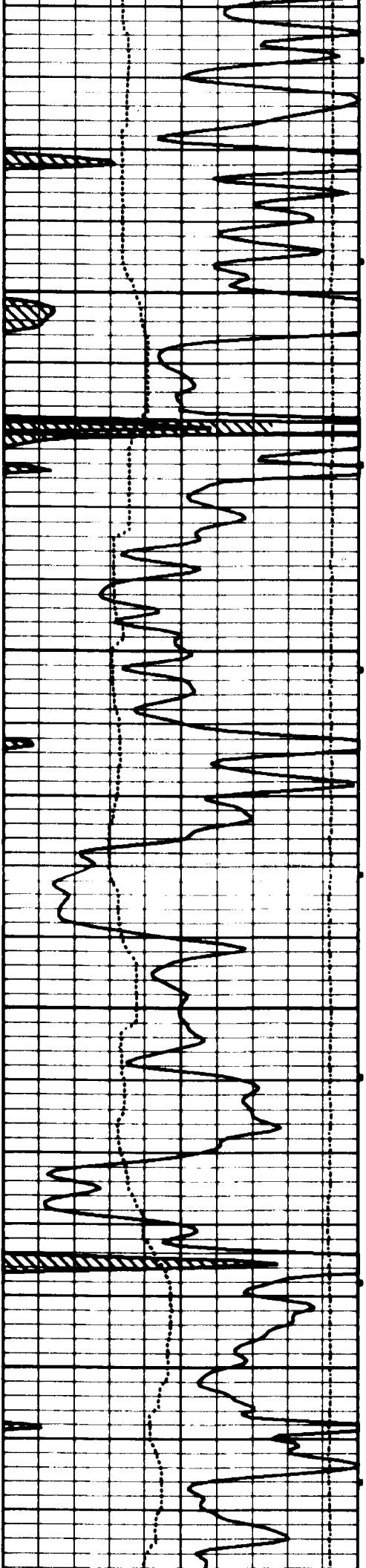
06500

06600

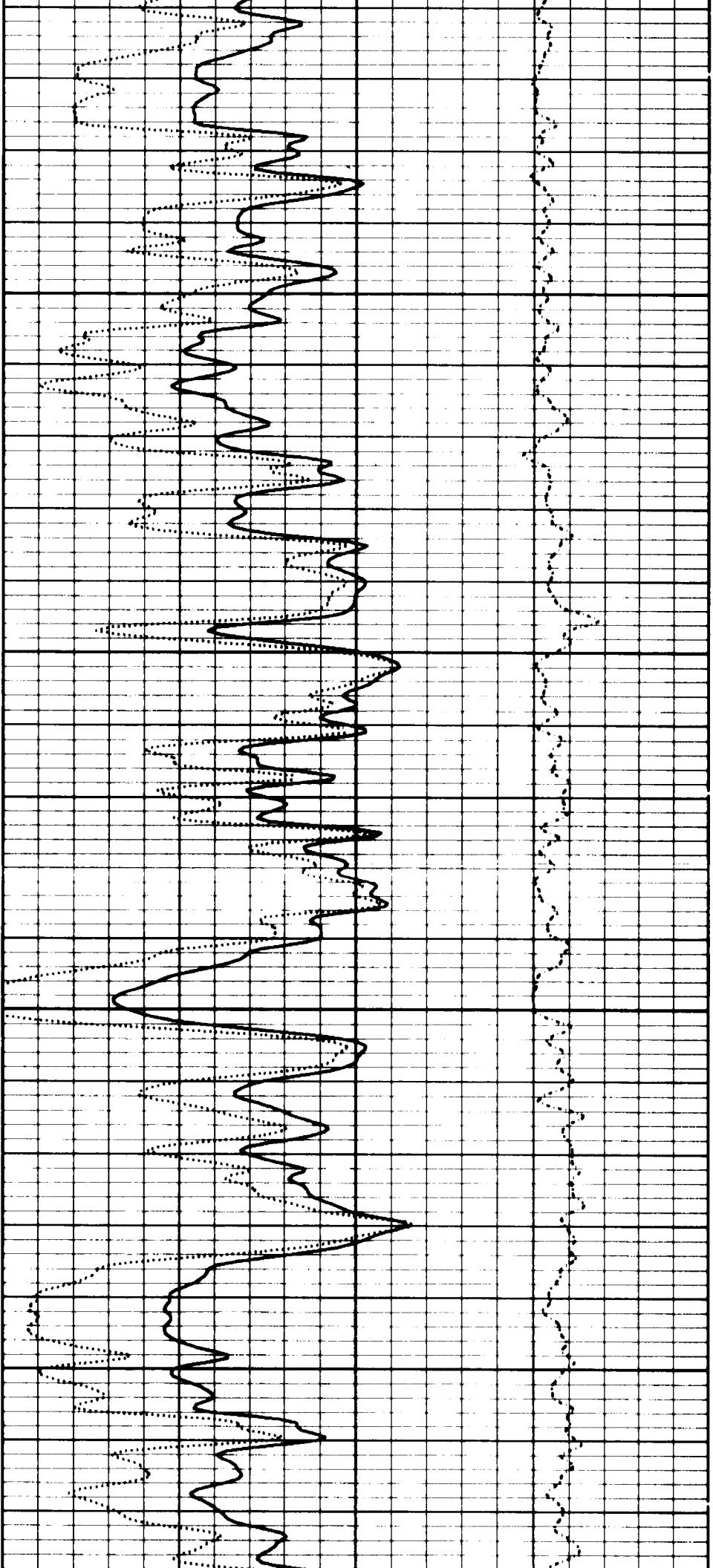




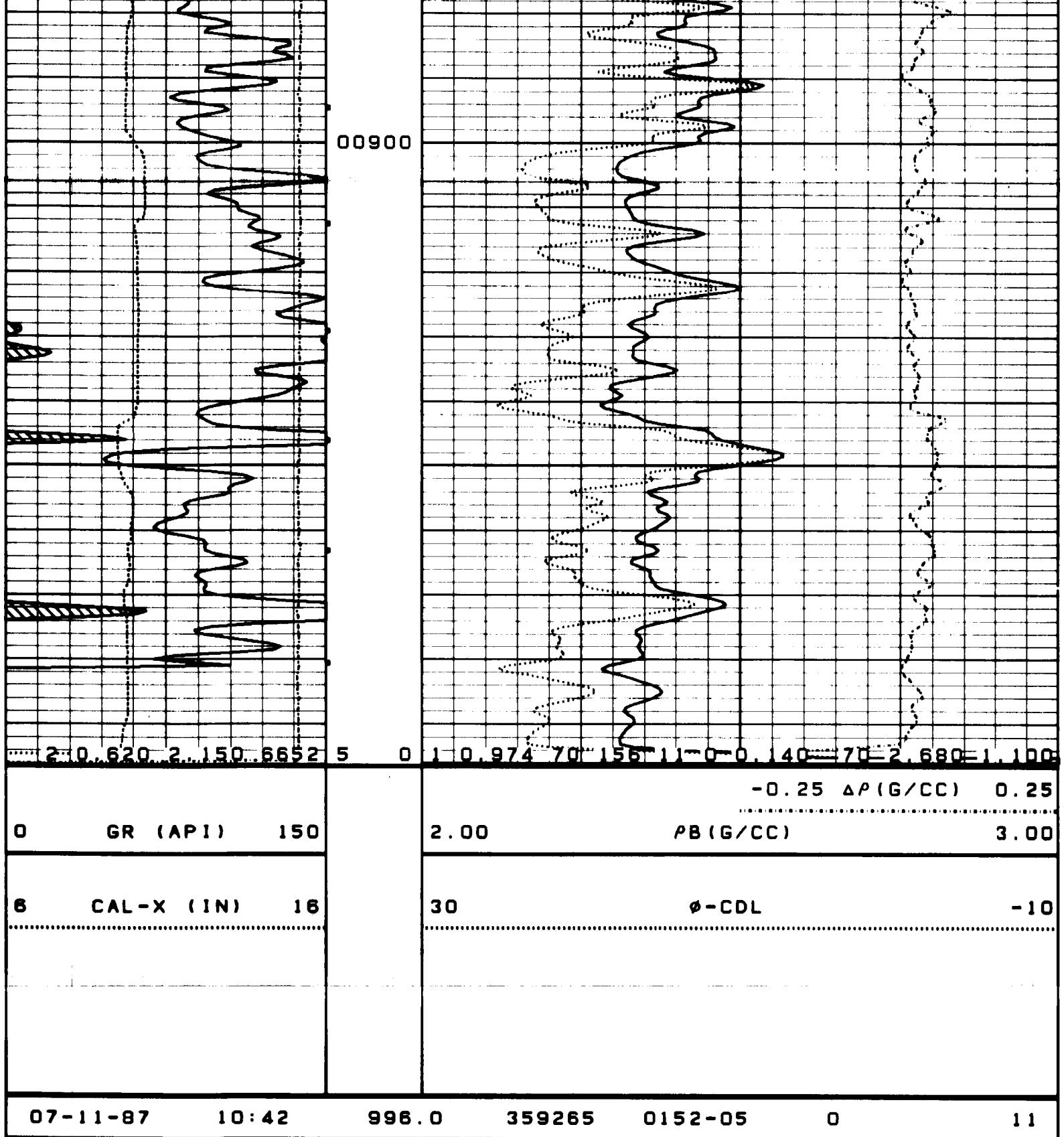




00700



00800



07-11-87 10:22 3486.0 359265 0152-05 0 10

-0.25 $\Delta\rho$ (G/CC) 0.25

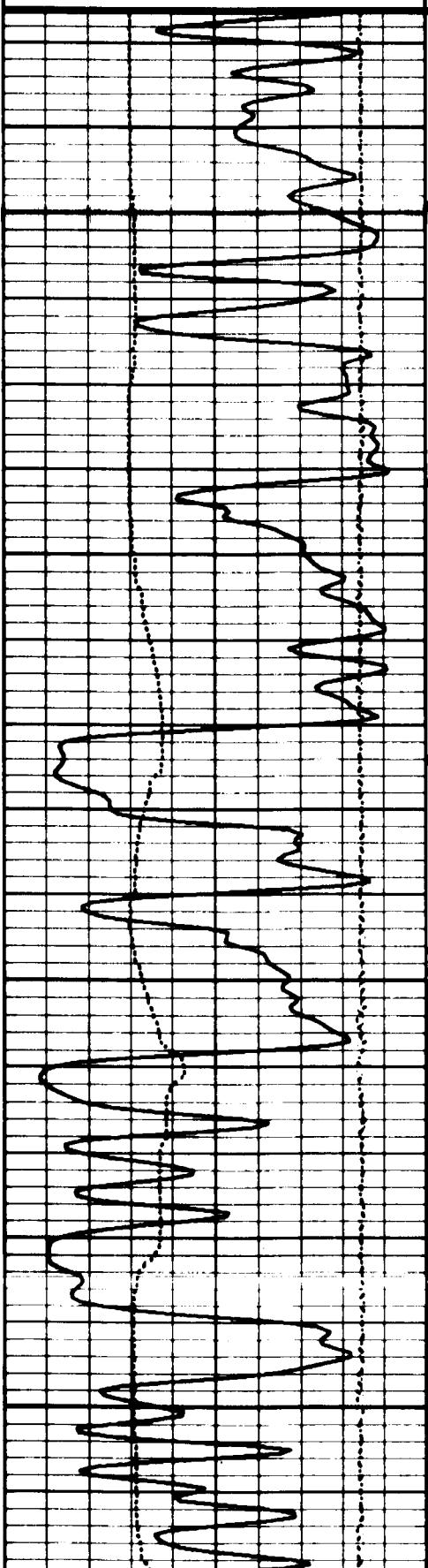
0 GR (API) 150	2.00	PB (G/CC) 3.00
----------------	------	----------------

6 CAL-X (IN) 16

30

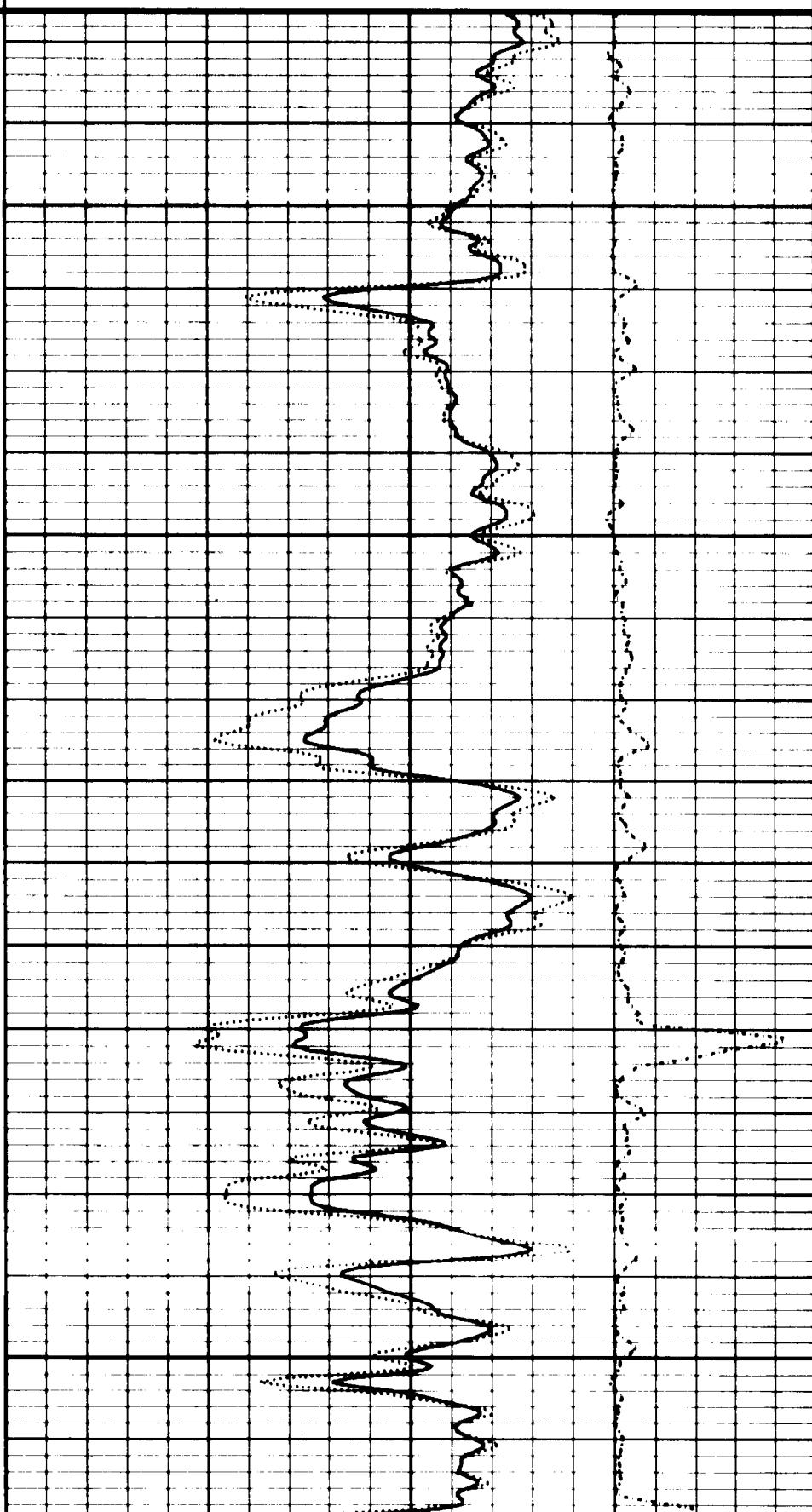
Ø-CDL

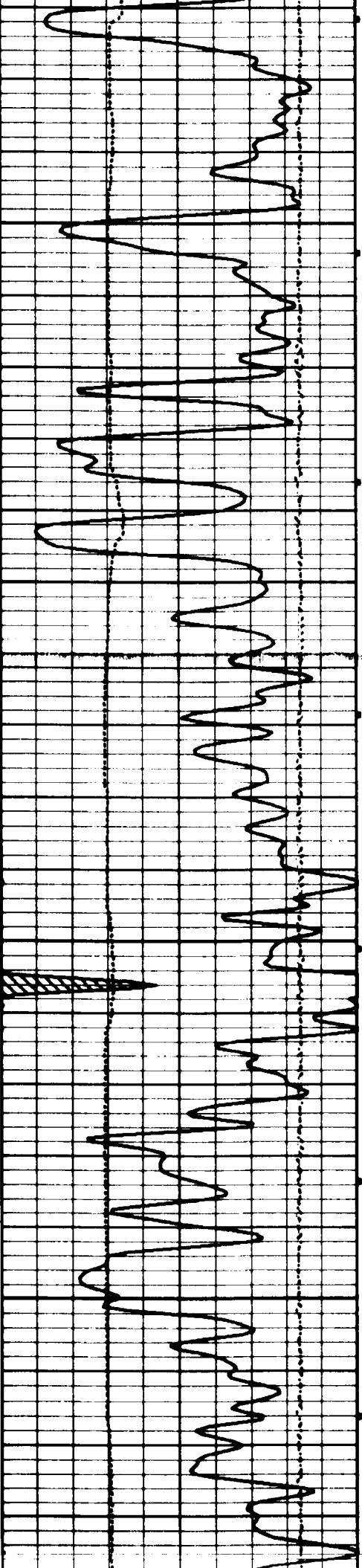
-10



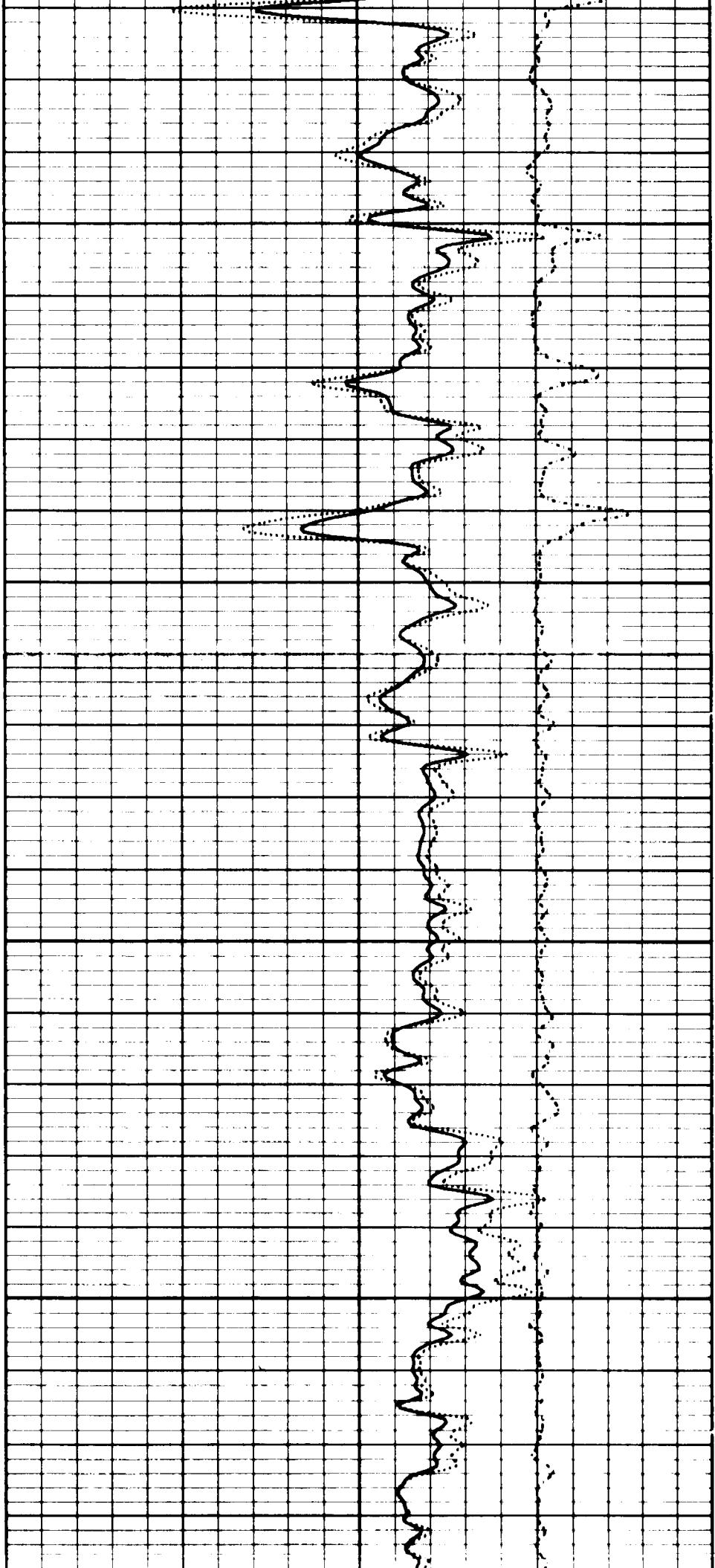
03500

03600

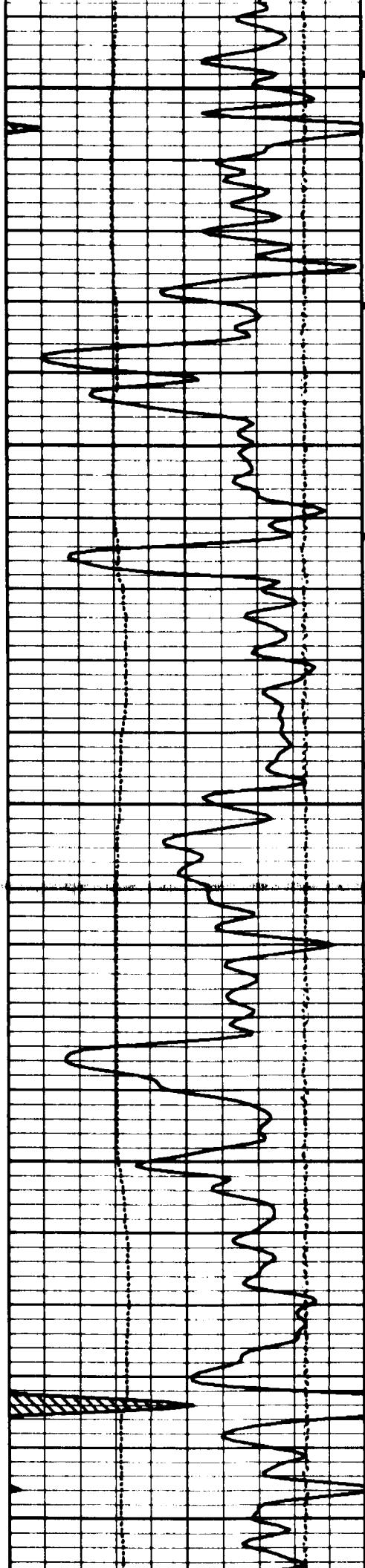




03700



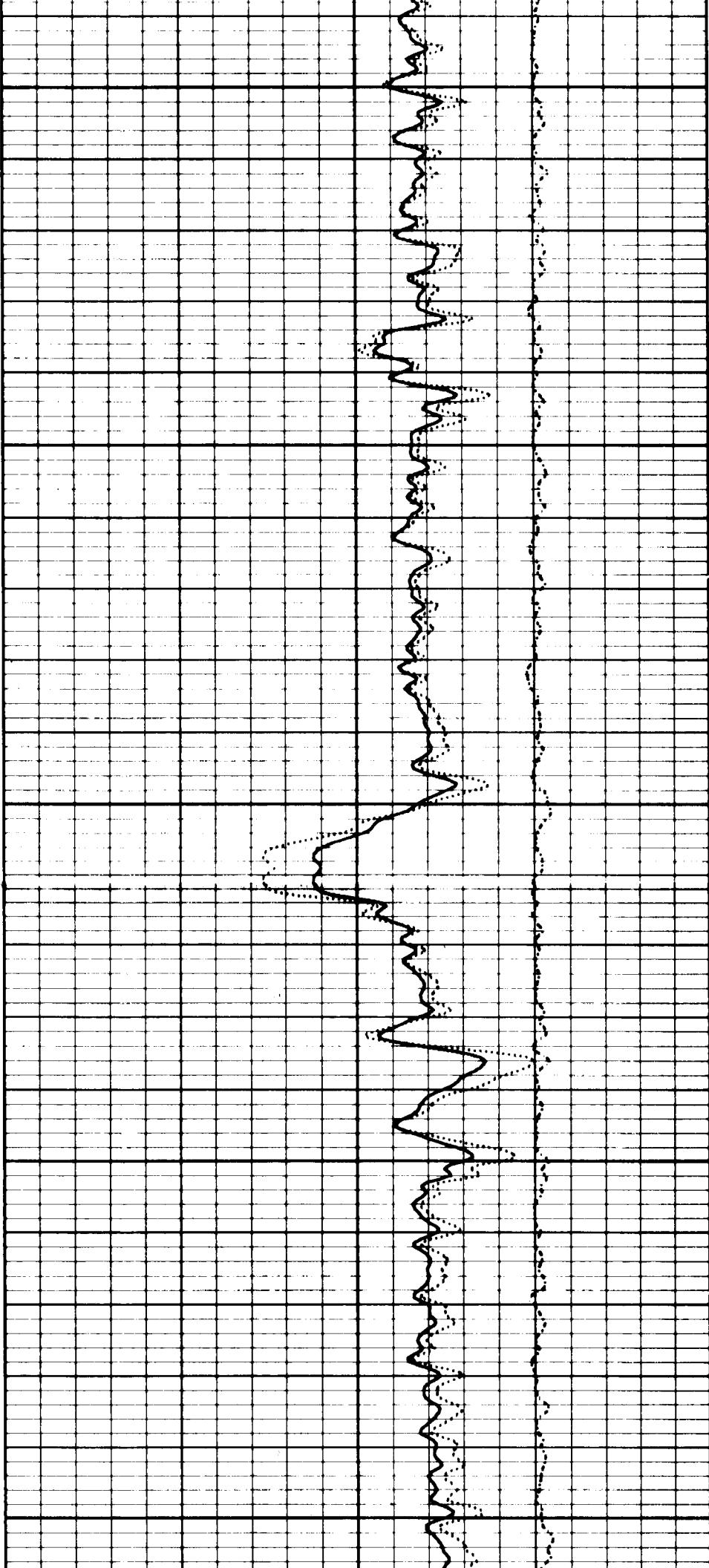
03800

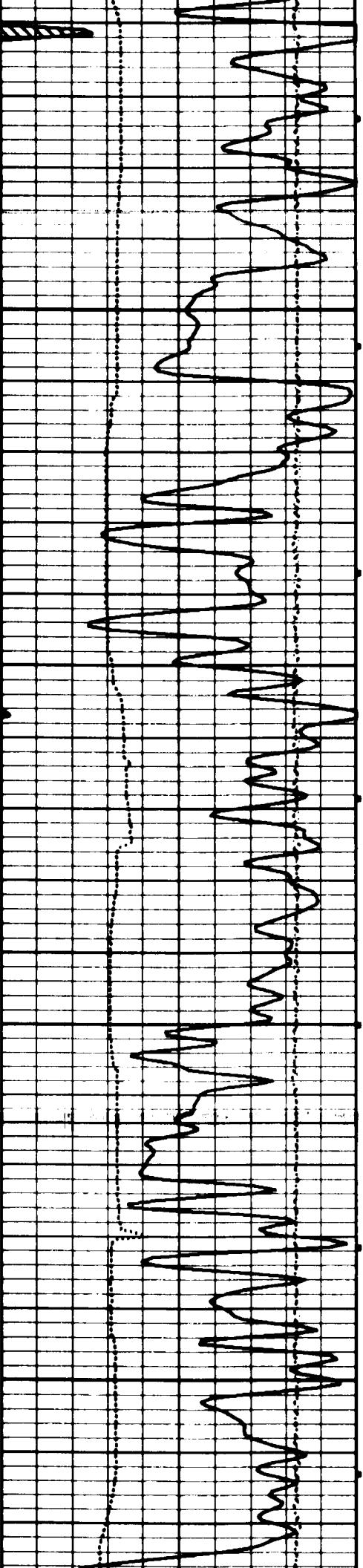


03900

04000

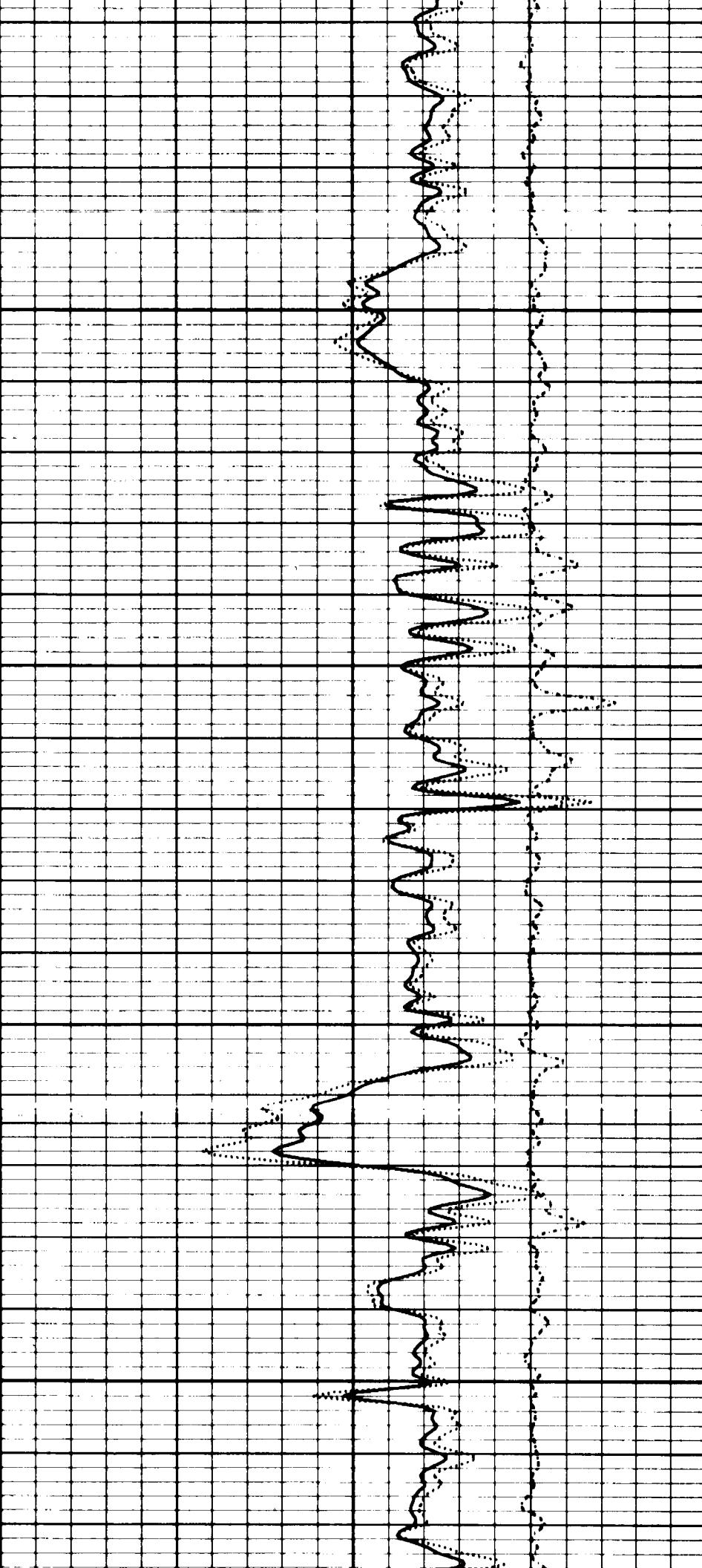
04100

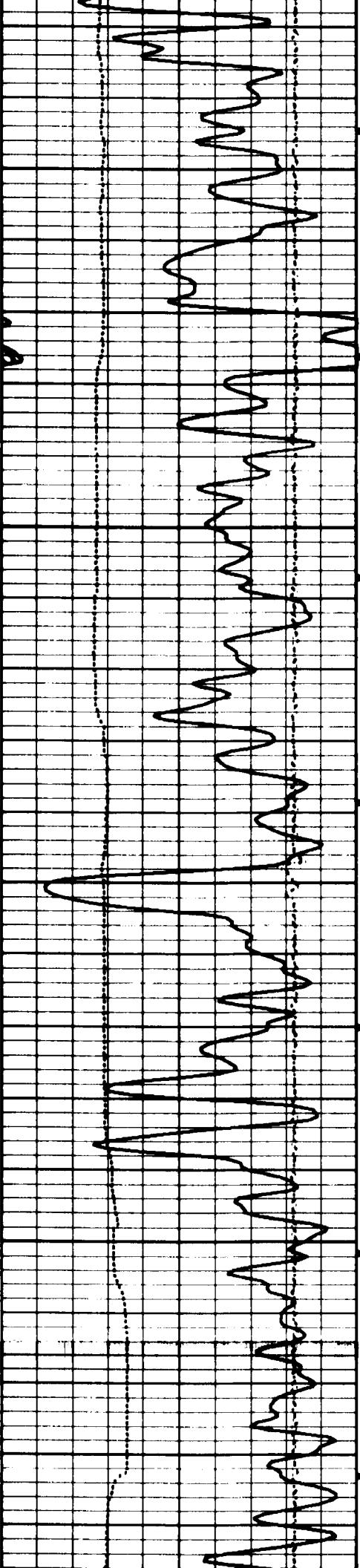




04200

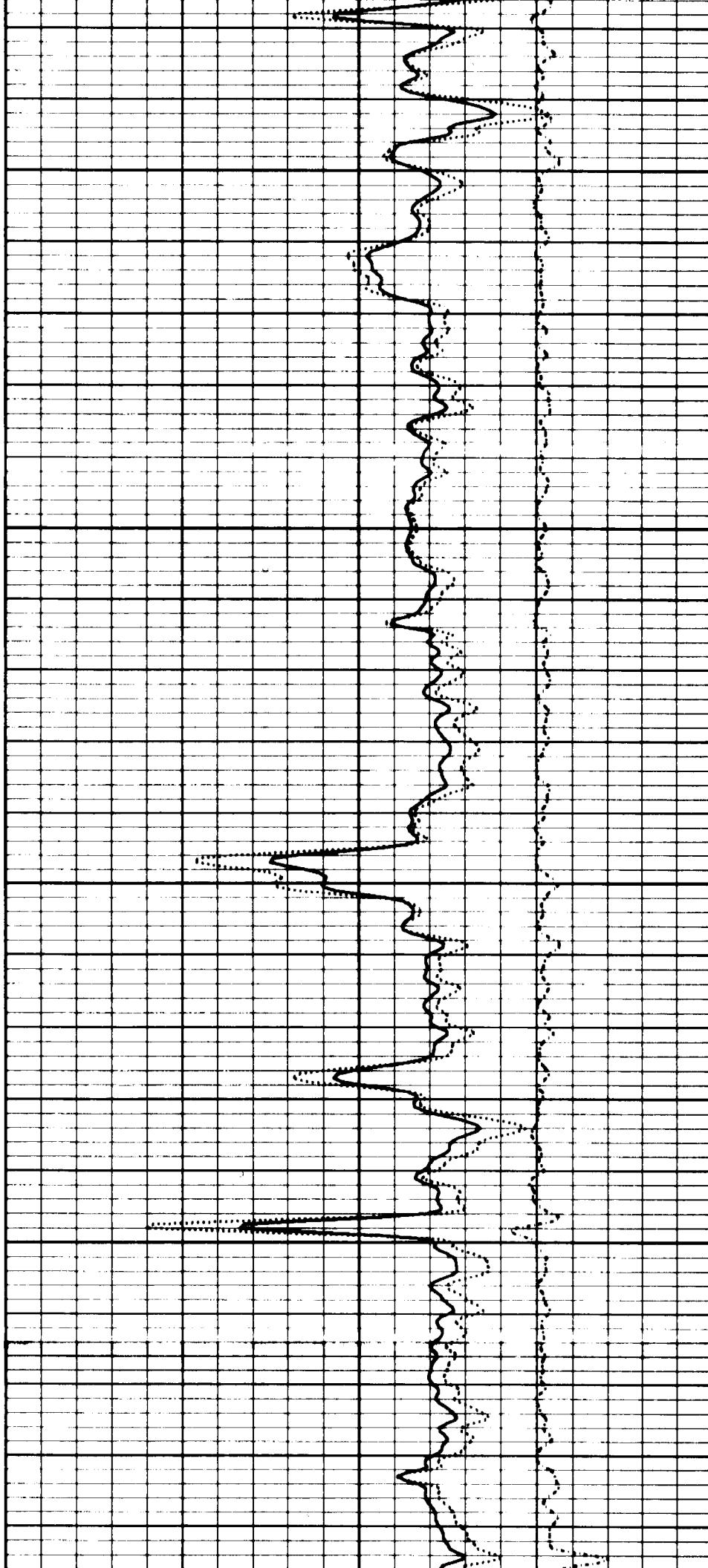
04300

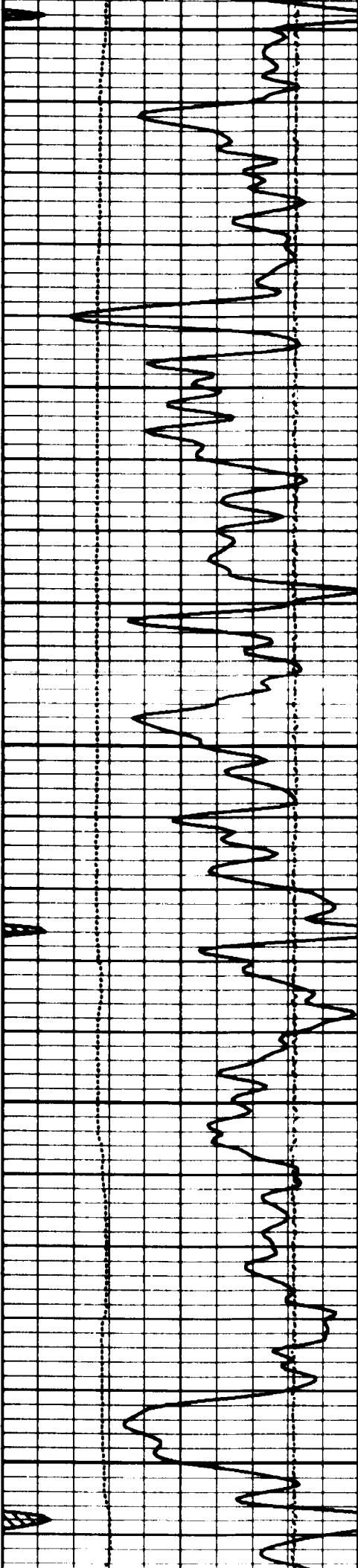




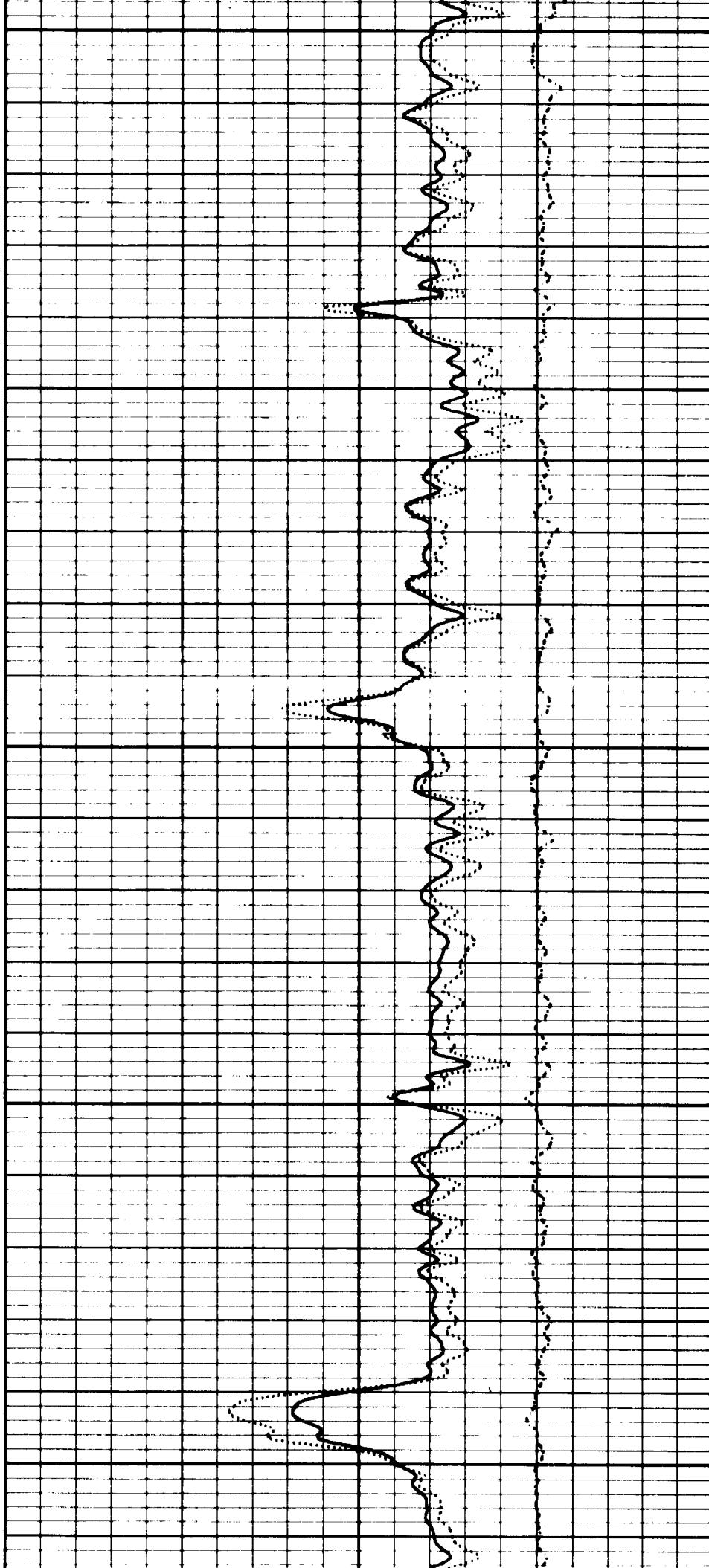
04400

04500

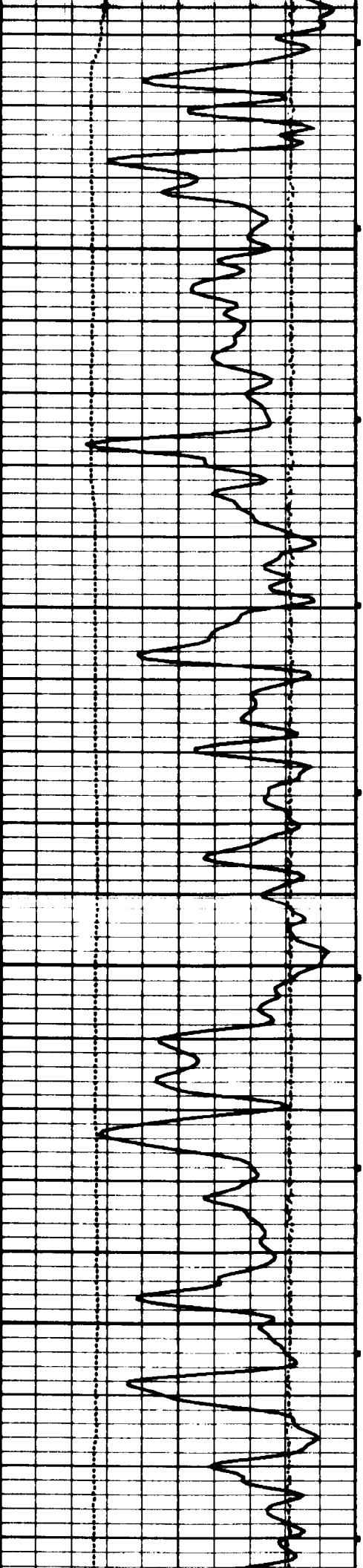




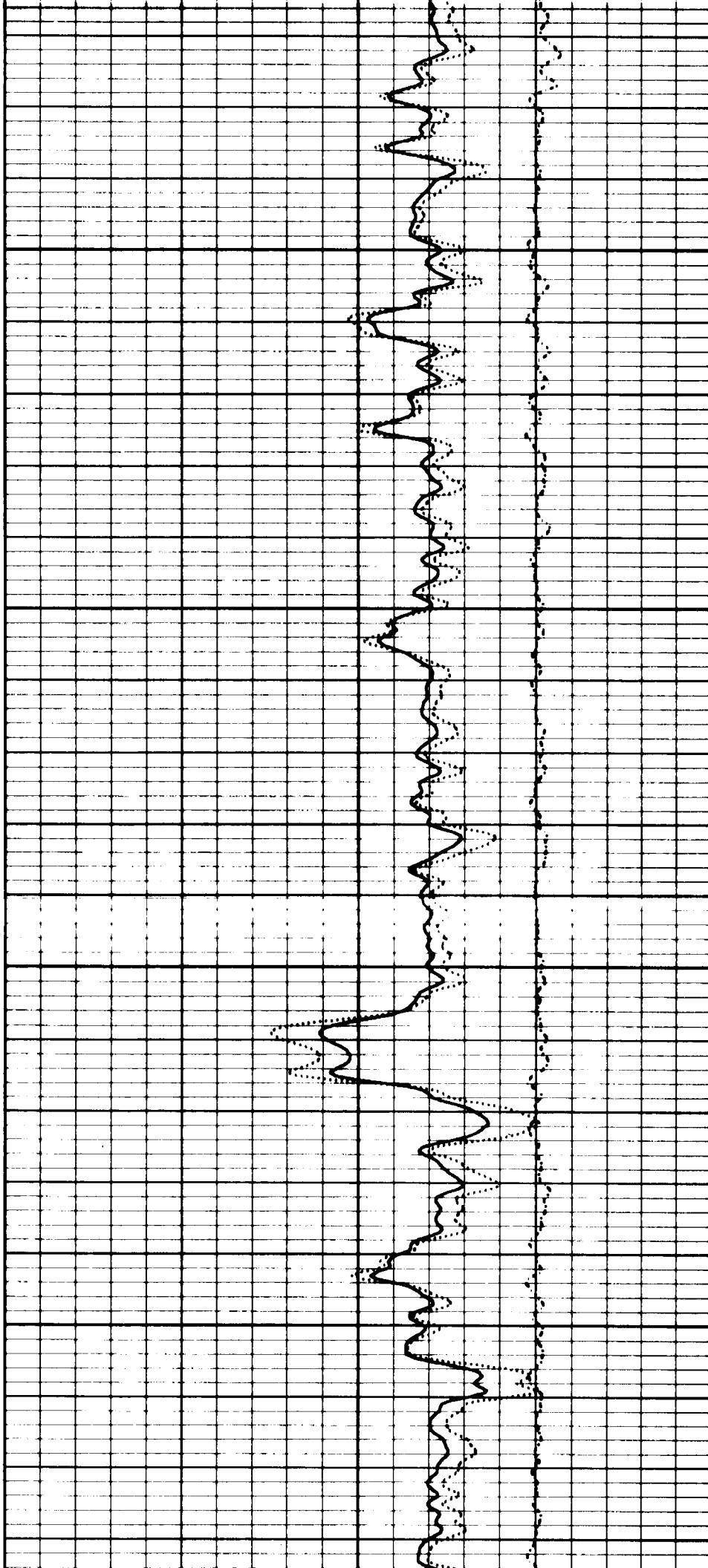
04600



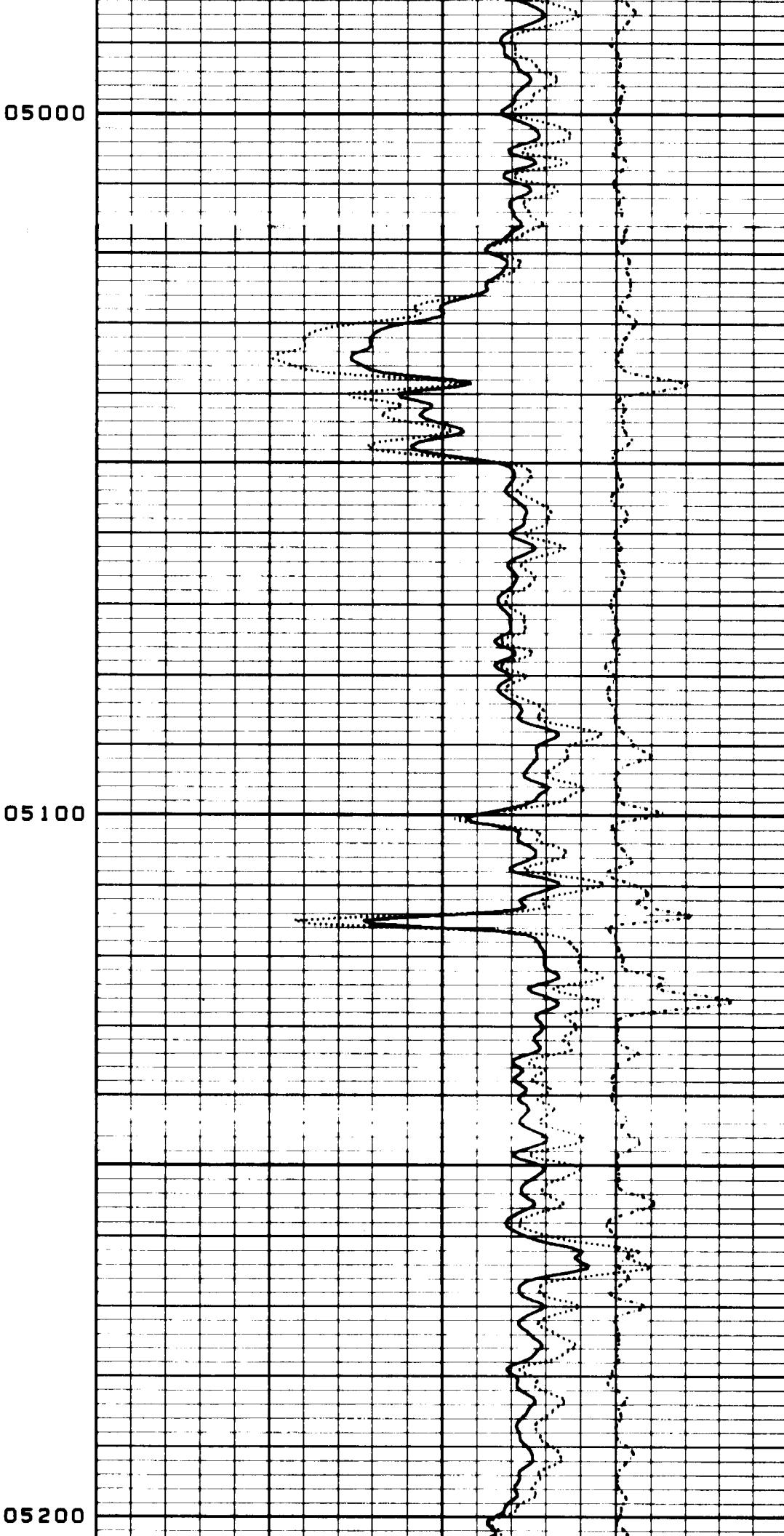
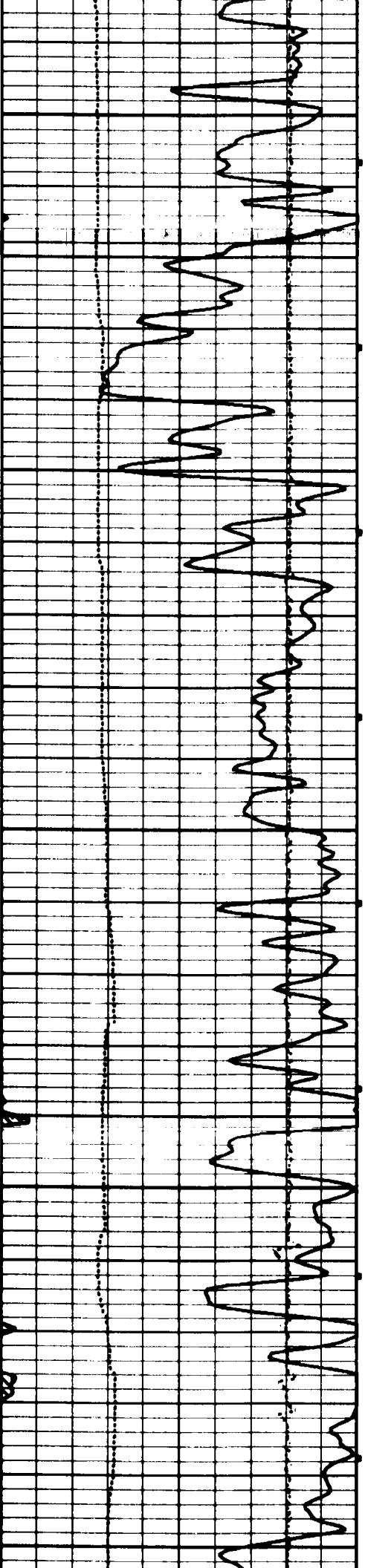
04700

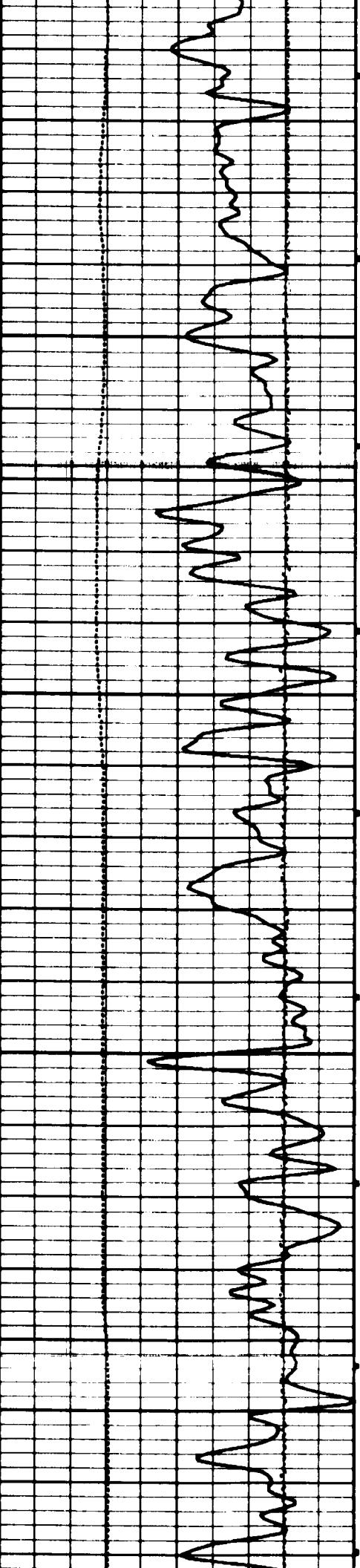


04800



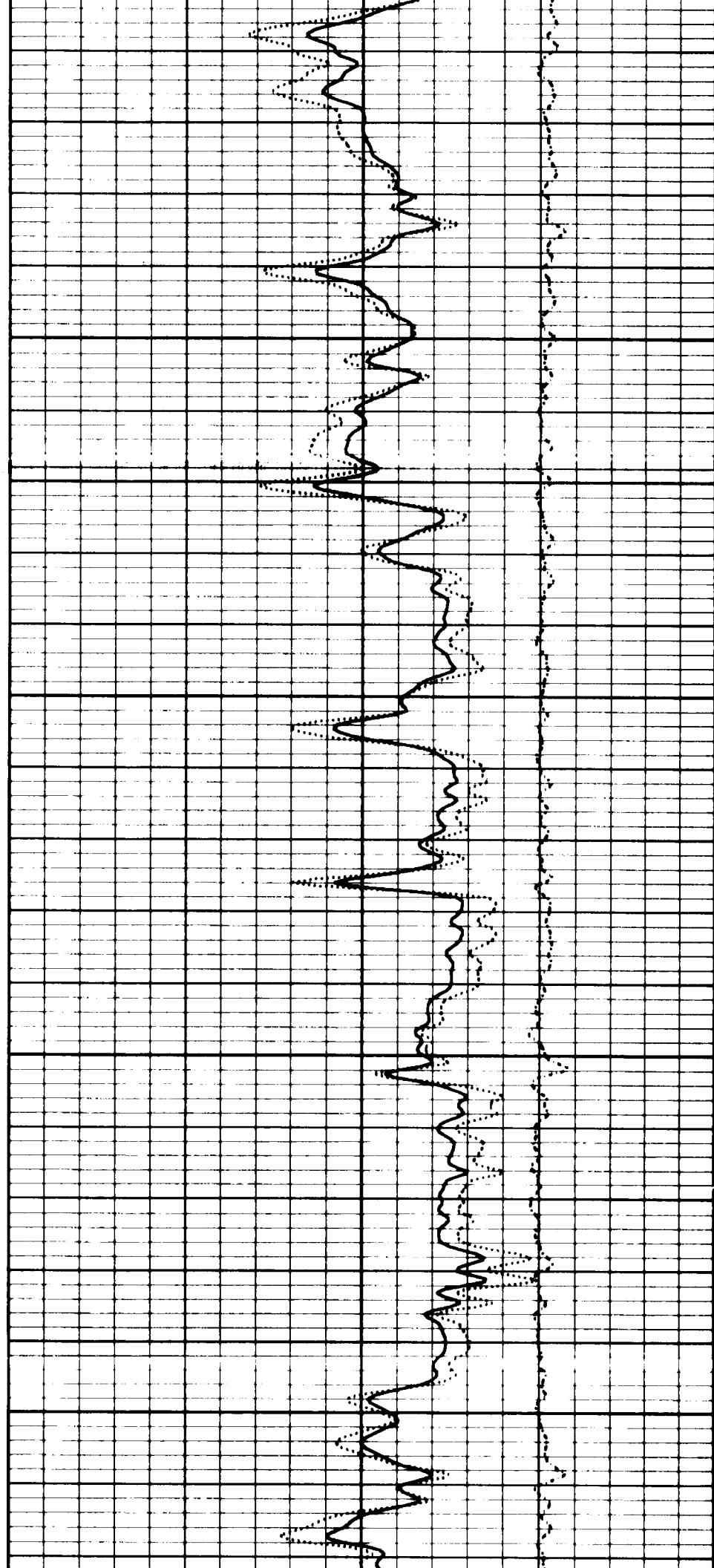
04900

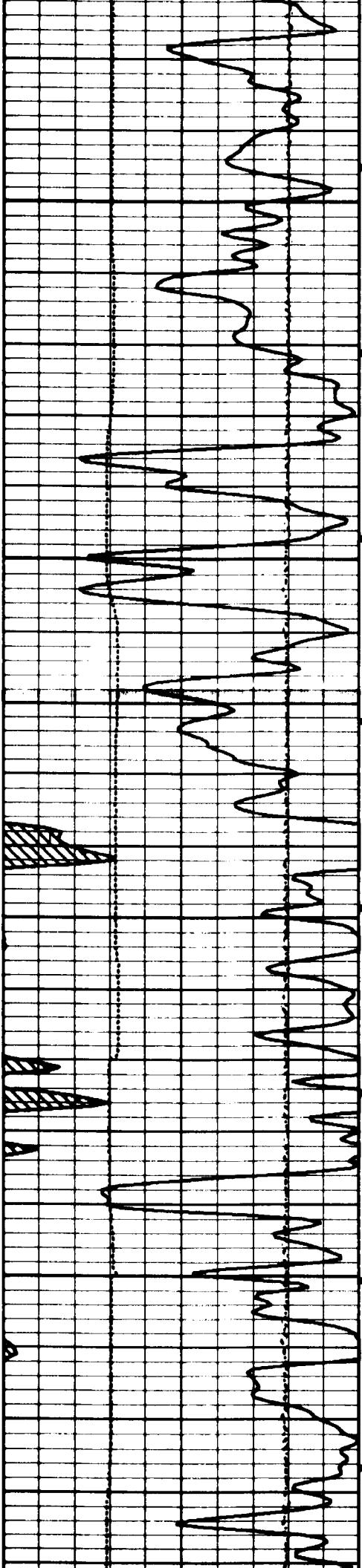




05300

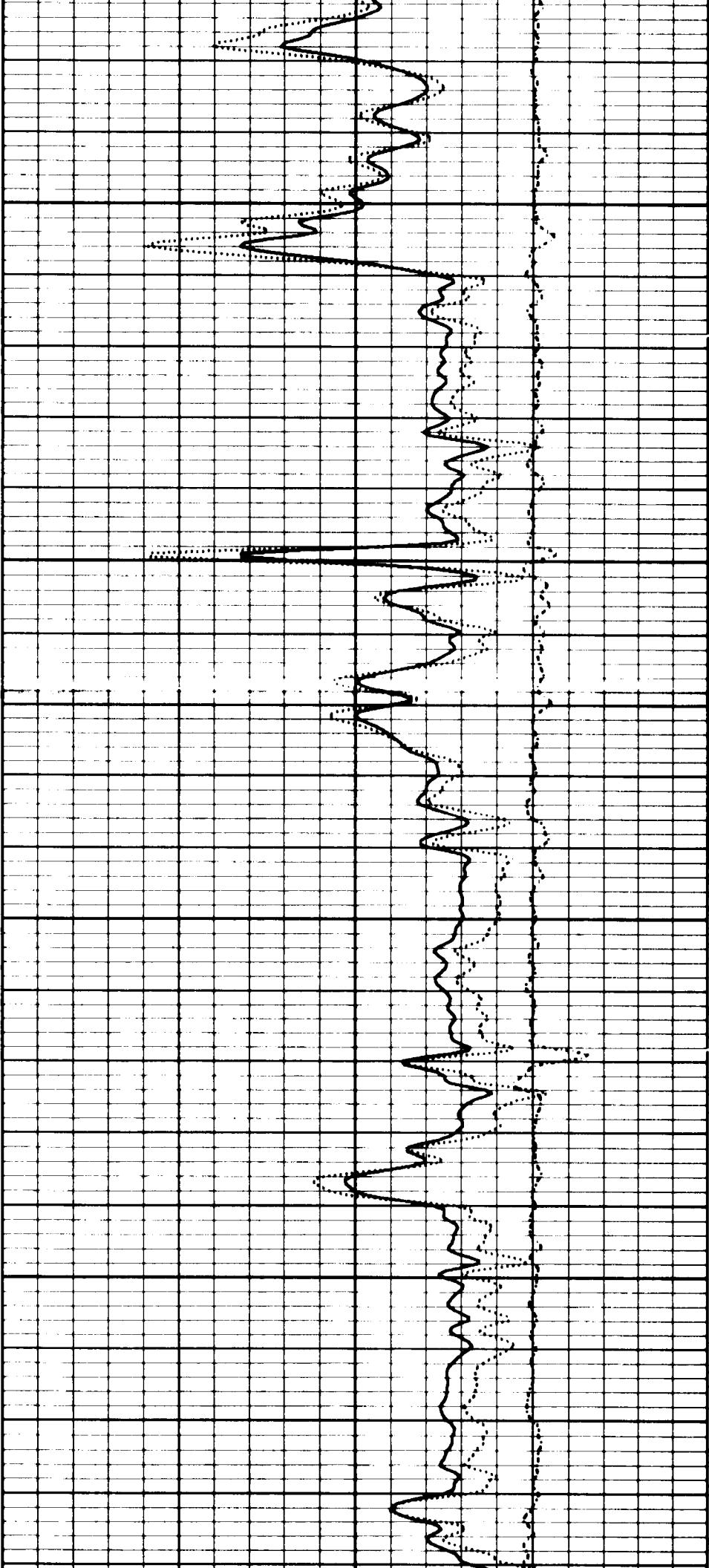
05400

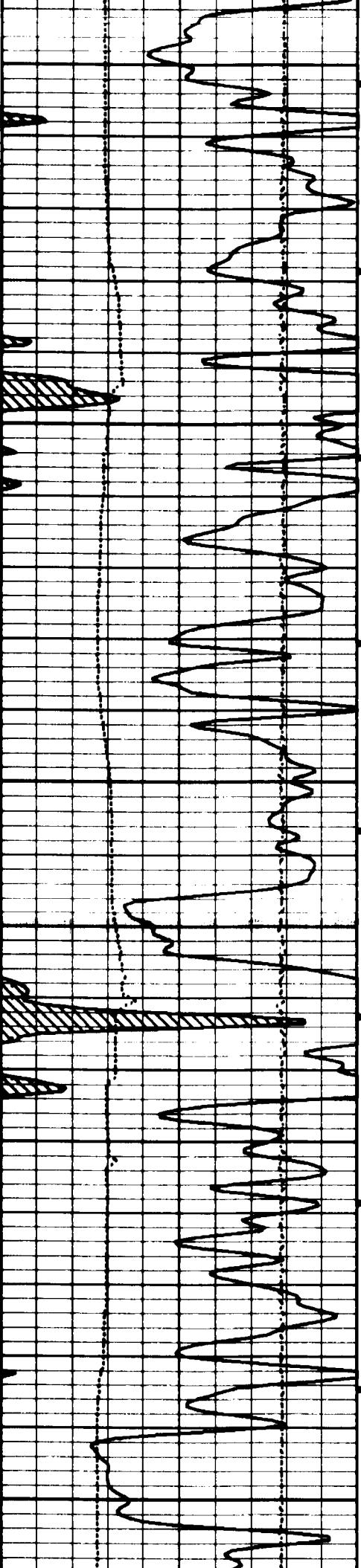




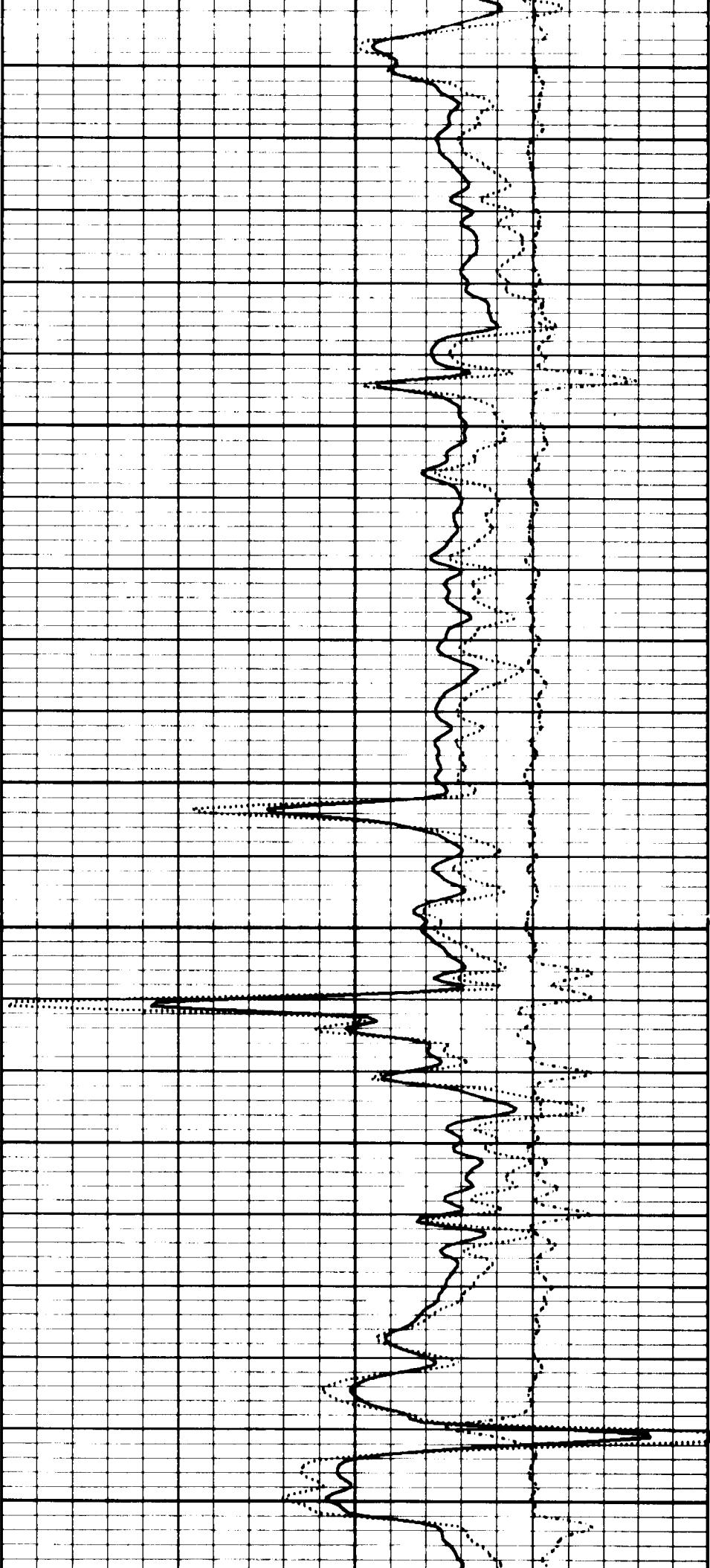
05500

05600

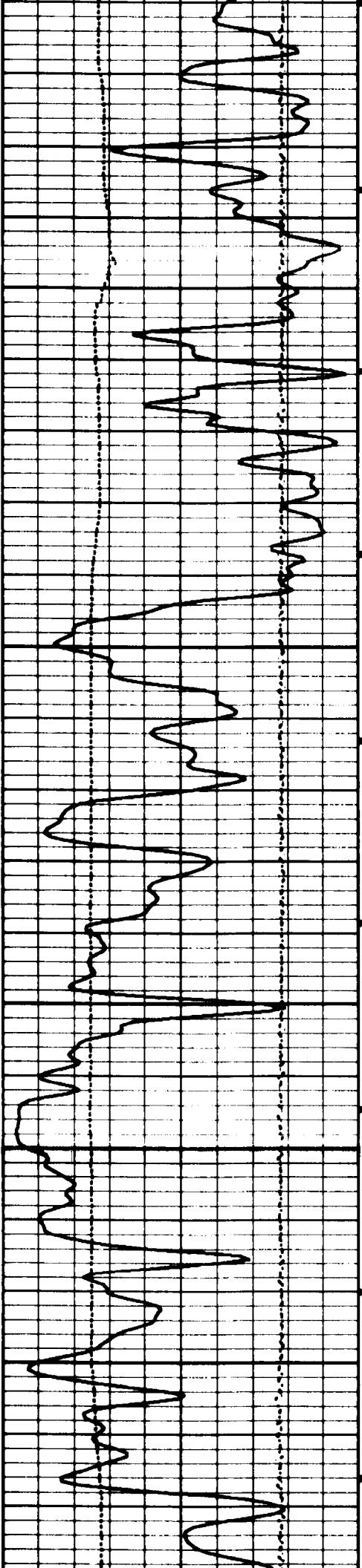




05700

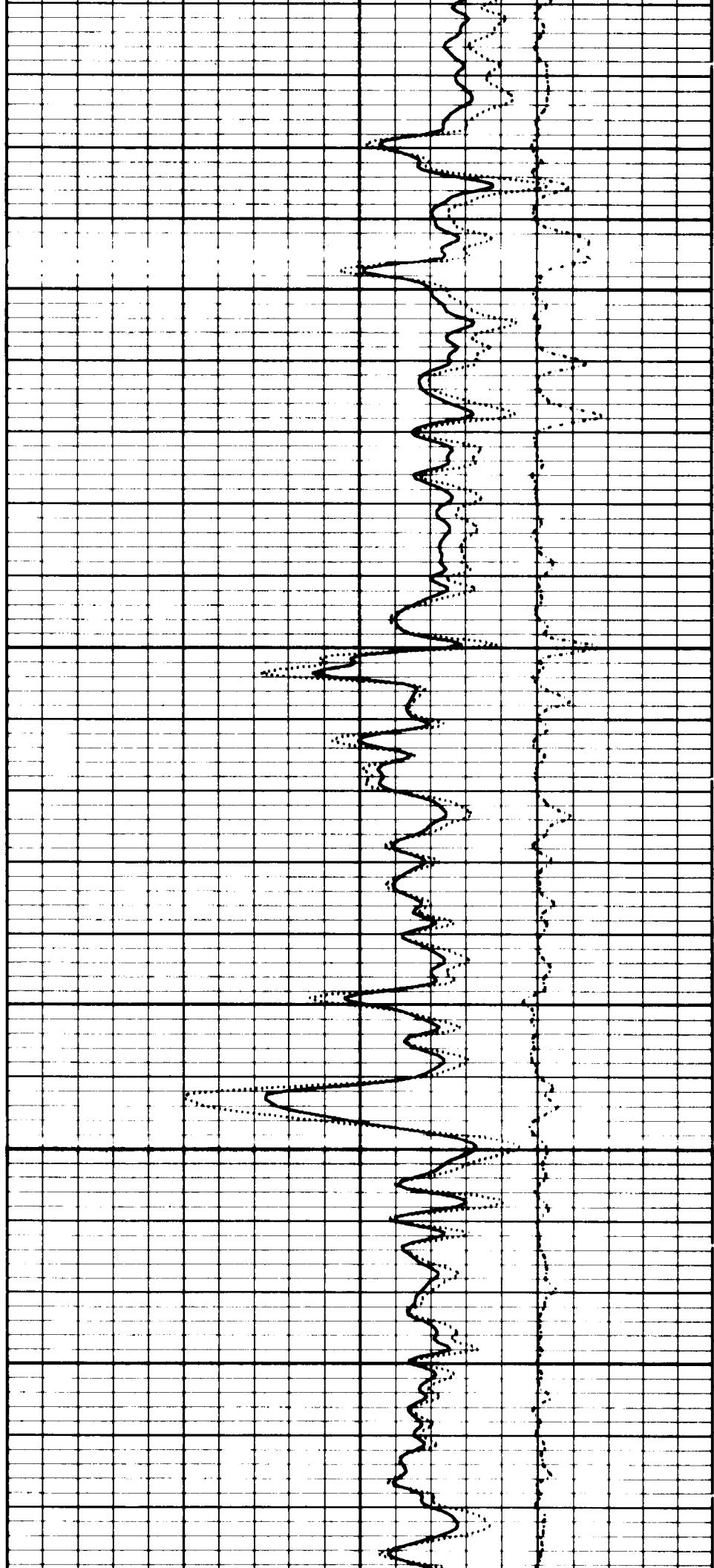


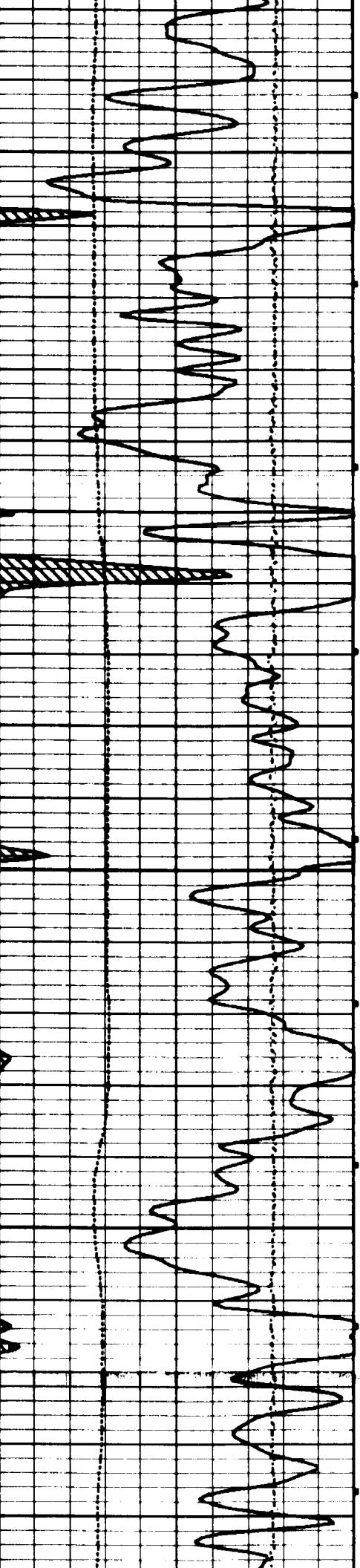
05800



05900

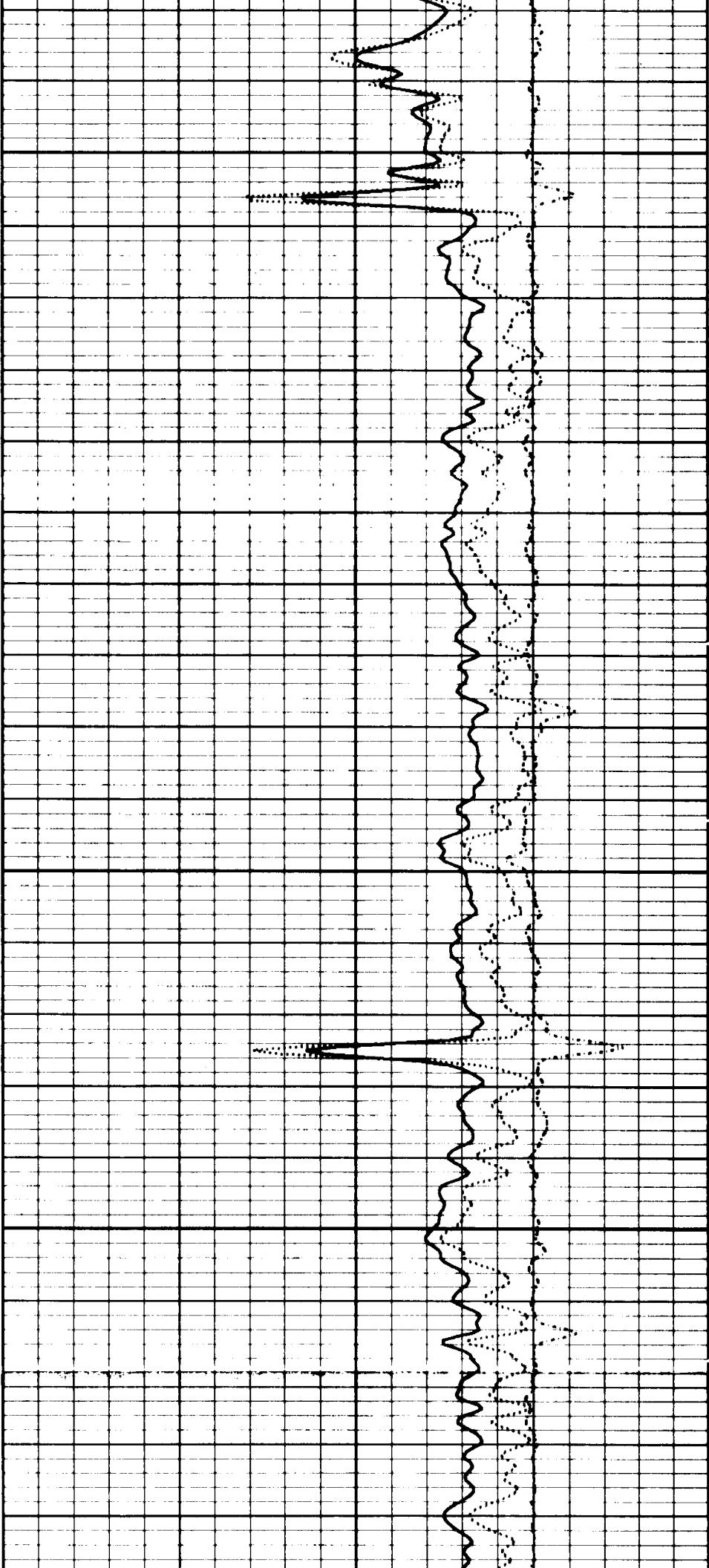
06000

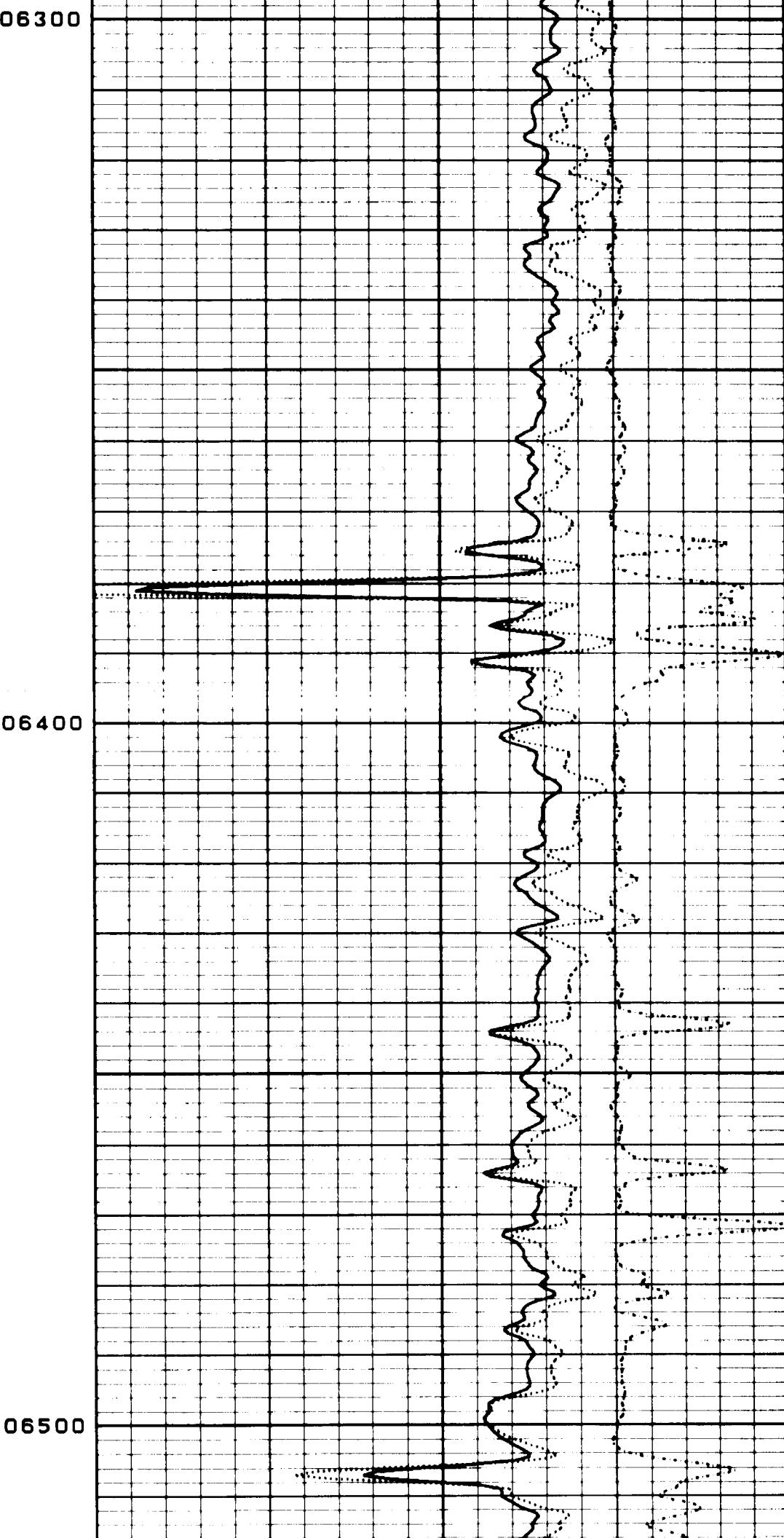
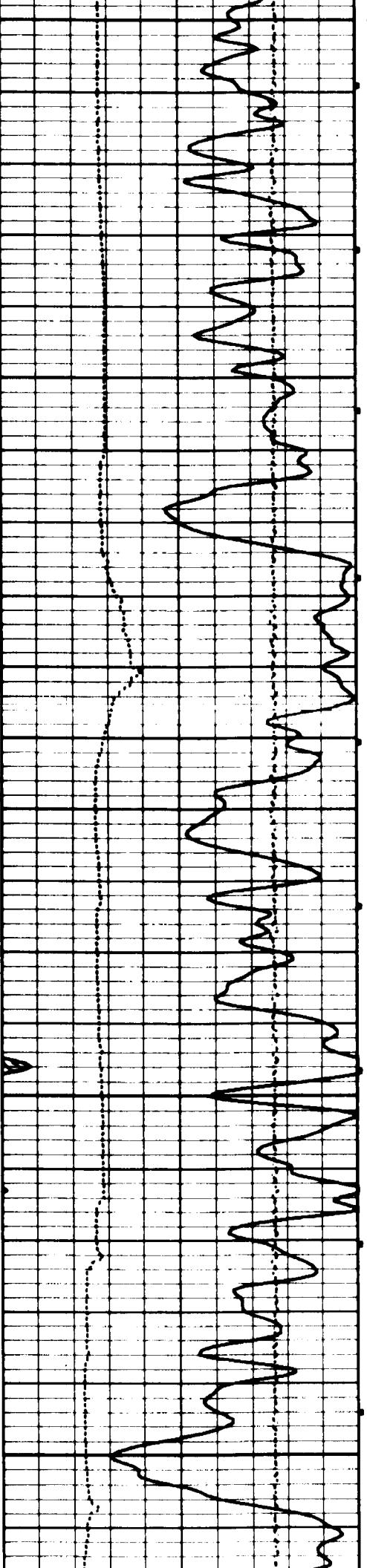


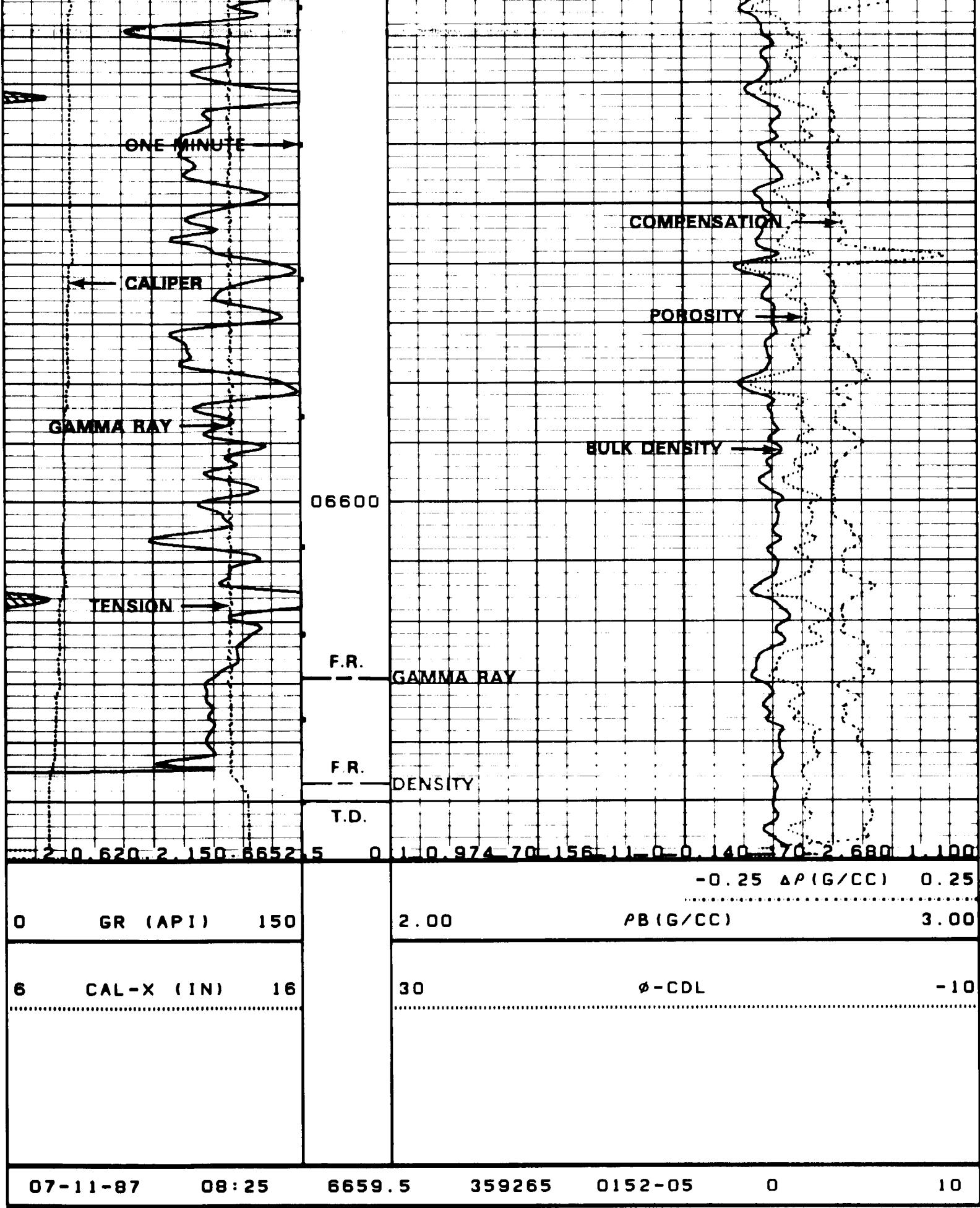


06100

06200







07-11-87

08:20

6388.5

359265

0152-05

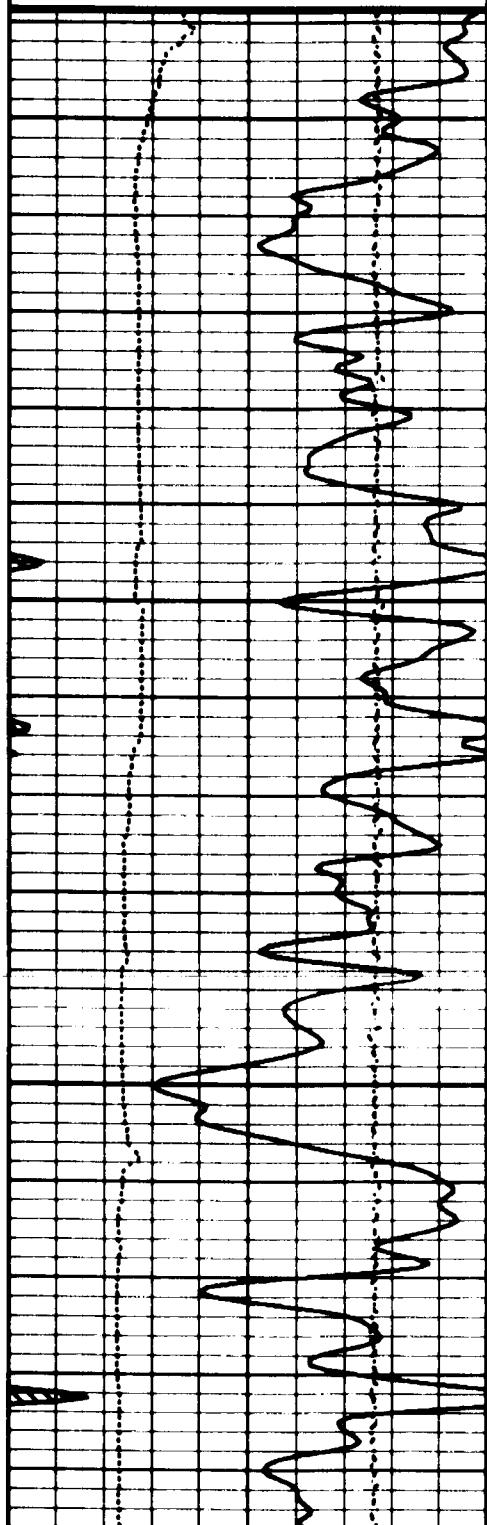
0

9

0 GR (API) 150

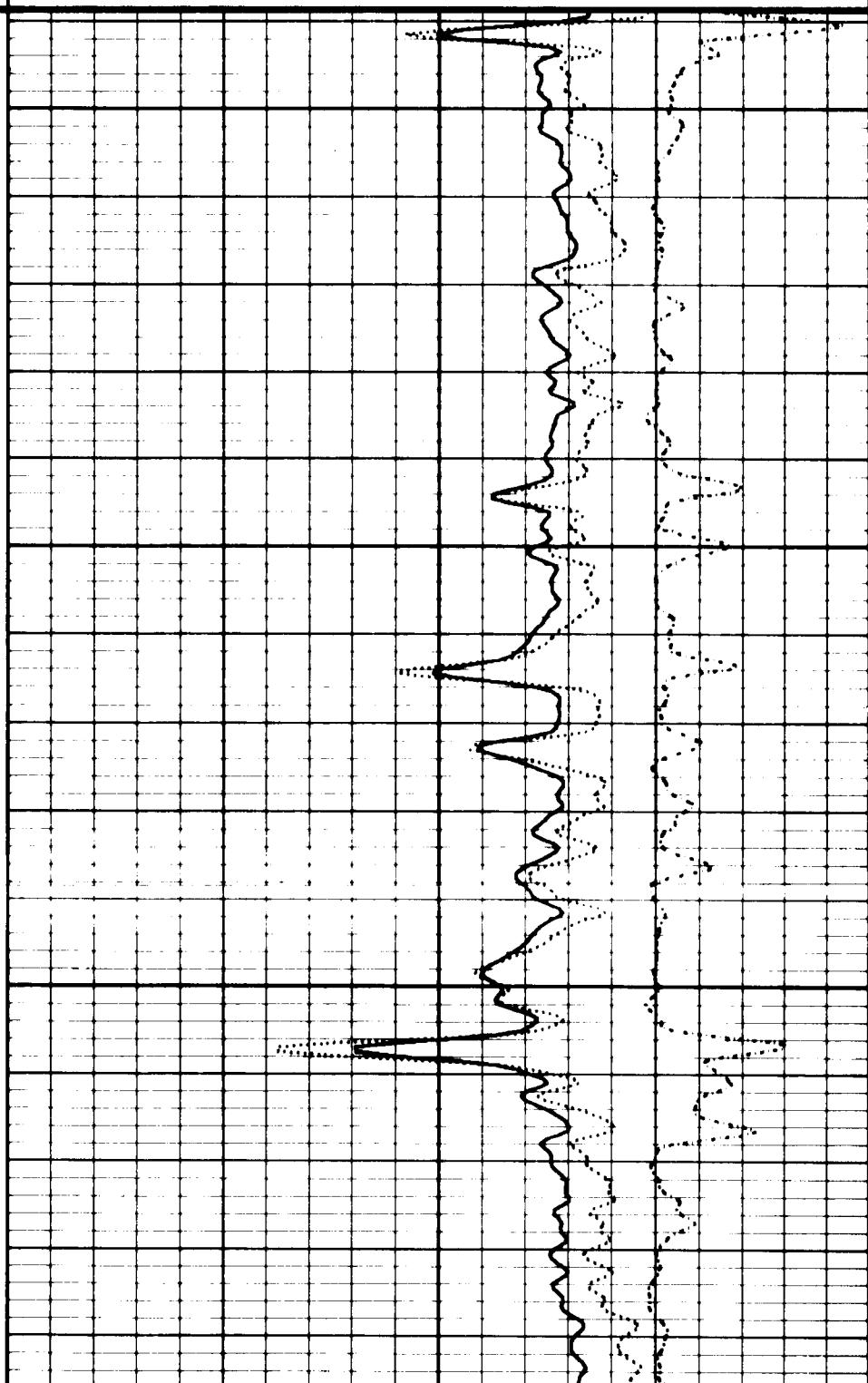
-0.25 $\Delta\rho$ (G/CC) 0.25

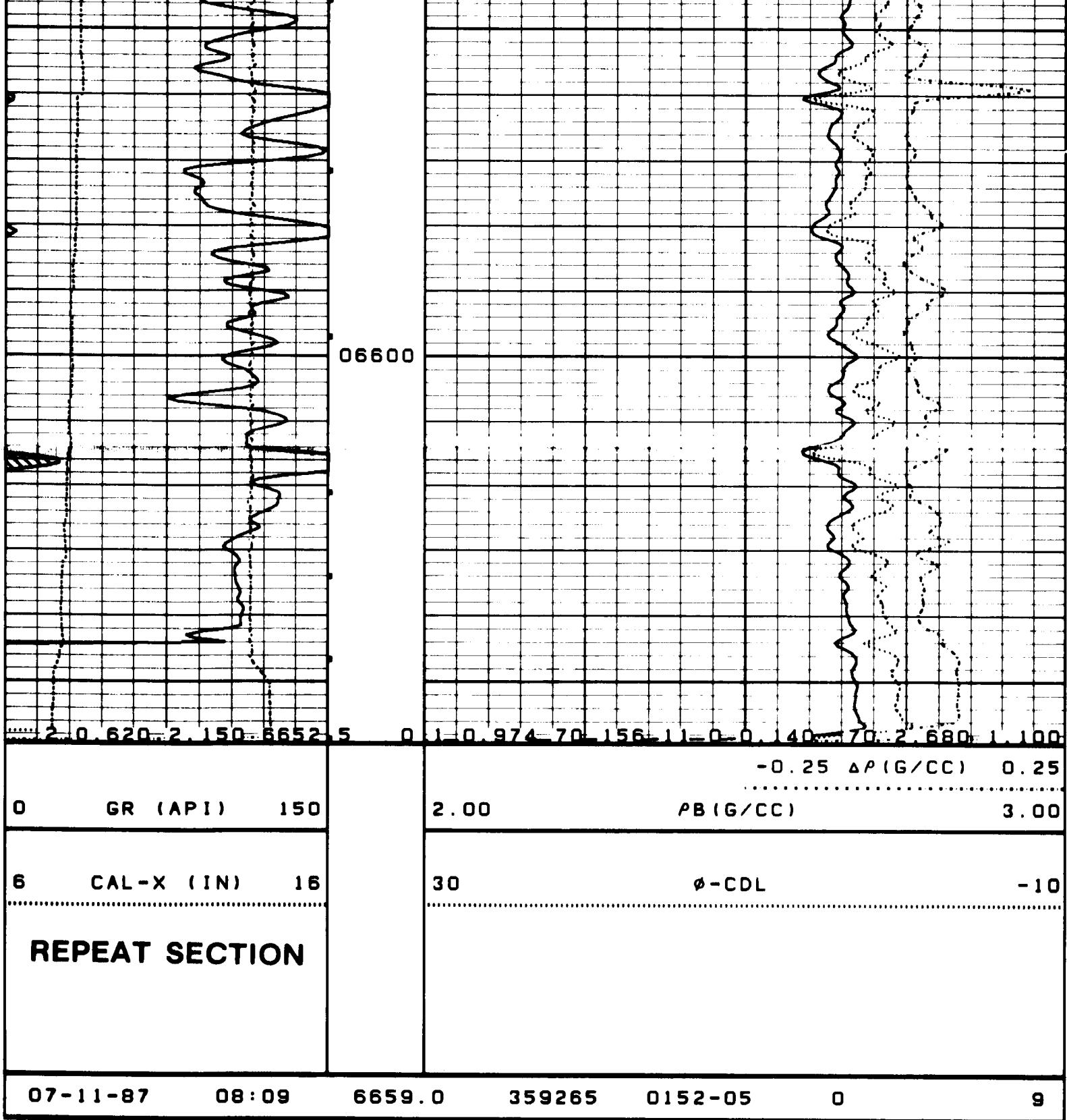
6 CAL-X (IN) 16

 ρ_B (G/CC) 3.00**REPEAT SECTION**30 ϕ -CDL -10

06400

06500





07-11-87 11:40 54.5 359265 0152-05 0 9

COMPENSATED NEUTRON AFTER SURVEY TOOL CHECK

TOOL TYPE: CNT- K SERIAL NO:00108

VERIFIER CHECK

	BEFORE	AFTER	UNITS
LS DETECTOR	255.2	258.1	CPS
SS DETECTOR	338.7	341.3	CPS
TOOL RATIO:	1.327	1.322	SS/LS
TOOL POROSITY:	9.42	9.33	LM-PU

TOOL CONSTANT: 0.974

07-11-87 11:33 54.5 359265 0152-05 0 8

COMPENSATED DENSITY AFTER SURVEY TOOL CHECK

TOOL TYPE: CDT-K SERIAL NO: 00097

VERIFIER NO: 00031 SOURCE NO: 00091

VERIFIER CHECK

	BEFORE	AFTER	UNITS
LS DETECTOR	276.4	275.6	CPS
SS DETECTOR	356.4	354.5	CPS
BULK DENSITY	2.382	2.380	G/CC

07-11-87 07:25 267.0 359265 0152-05 0 7

CALIPER CASING CHECK

TOOL TYPE: CDT- SERIAL NO: 00097

MEASURED CASING ID. X-CALIPER = 8.13 IN

07-11-87 01:15 0.0 359265 0152-05 0 8

CALIPER BEFORE SURVEY CALIBRATION

TOOL TYPE: CDT-

SERIAL NO:00097

	MEASURED			CALIBRATED		
	SMALL	LARGE	UNITS	SMALL	LARGE	UNITS
CALX	6.50	11.85	IN	7.00	14.00	IN

07-11-87 01:10 0.0 359265 0152-05 0 5

GAMMA RAY BEFORE SURVEY CALIBRATION

TOOL TYPE: GRT-HA

SERIAL NO:00108

BACKGROUND	CALIBRATOR	STANDARD	UNITS
147.8	660.4	140.0	GAPI
DELTA COUNTS PER SEC: 512.6		CPS/API = 3.661	

07-11-87 01:04 0.0 359265 0152-05 0 4

COMPENSATED NEUTRON BEFORE SURVEY TOOL CHECK

TOOL TYPE: CNT- K

SERIAL NO:00108

VERIFIER NO: 00031

SOURCE NO: 00657

VERIFIER CHECK UNITS

LS DETECTOR 255.2 CPS

SS DETECTOR 338.7 CPS

TOOL RATIO: 1.327 SS/LS

TOOL POROSITY: 9.42 LM-PU

TOOL CONSTANT: 0.974

07-11-87

00:46

0.0

359265

0152-05

0

2

COMPENSATED DENSITY BEFORE SURVEY TOOL CHECK

TOOL TYPE: CDT- K

SERIAL NO: 00097

VERIFIER NO: 00031

SOURCE NO: 00091

VERIFIER CHECK UNITS

LS DETECTOR

276.4

CPS

SS DETECTOR

356.4

CPS

BULK DENSITY

2.382

G/CC

06-16-87

13:34

0.0

7636

0152-05

0

1

COMPENSATED NEUTRON SHOP CALIBRATION

TOOL TYPE: CNT- K

SERIAL NO: 00108

VERIFIER NO: 00031

SOURCE NO: 00657

LOW - Ø MED - Ø HIGH - Ø UNITS

TANK RATIO: 0.566 1.389 2.176 SS/LS

TANK POROSITY: -0.34 11.23 25.89 LM-PU

LS DETECTOR 1926.1 382.7 173.9 CPS

SS DETECTOR 1088.3 553.4 392.8 CPS

TOOL RATIO: 0.563 1.426 2.227 SS/LS

TOOL POROSITY: -0.44 11.21 25.75 LM-PU

TOOL CONSTANT: 0.974

SURFACE TEMPERATURE: 55° F

FIELD VERIFIER

SS DETECTOR	LS DETECTOR	RATIO	POROSITY
341.2 CPS	253.4 CPS	1.346	9.78

06-16-87

10:01

0.0

7636

0152-05

0

0

COMPENSATED DENSITY SHOP CALIBRATION

TOOL TYPE: CDT- K

SERIAL NO: 00097

VERIFIER NO: 00031

SOURCE NO: 00091

	MAG BLK(CPS)	ALUM BLK(CPS)	SPINE ANGLE	DEN/SPINE RATIO
LS DETECTOR	1289.5	274.4		
SS DETECTOR	685.2	460.6	75.4	0.556

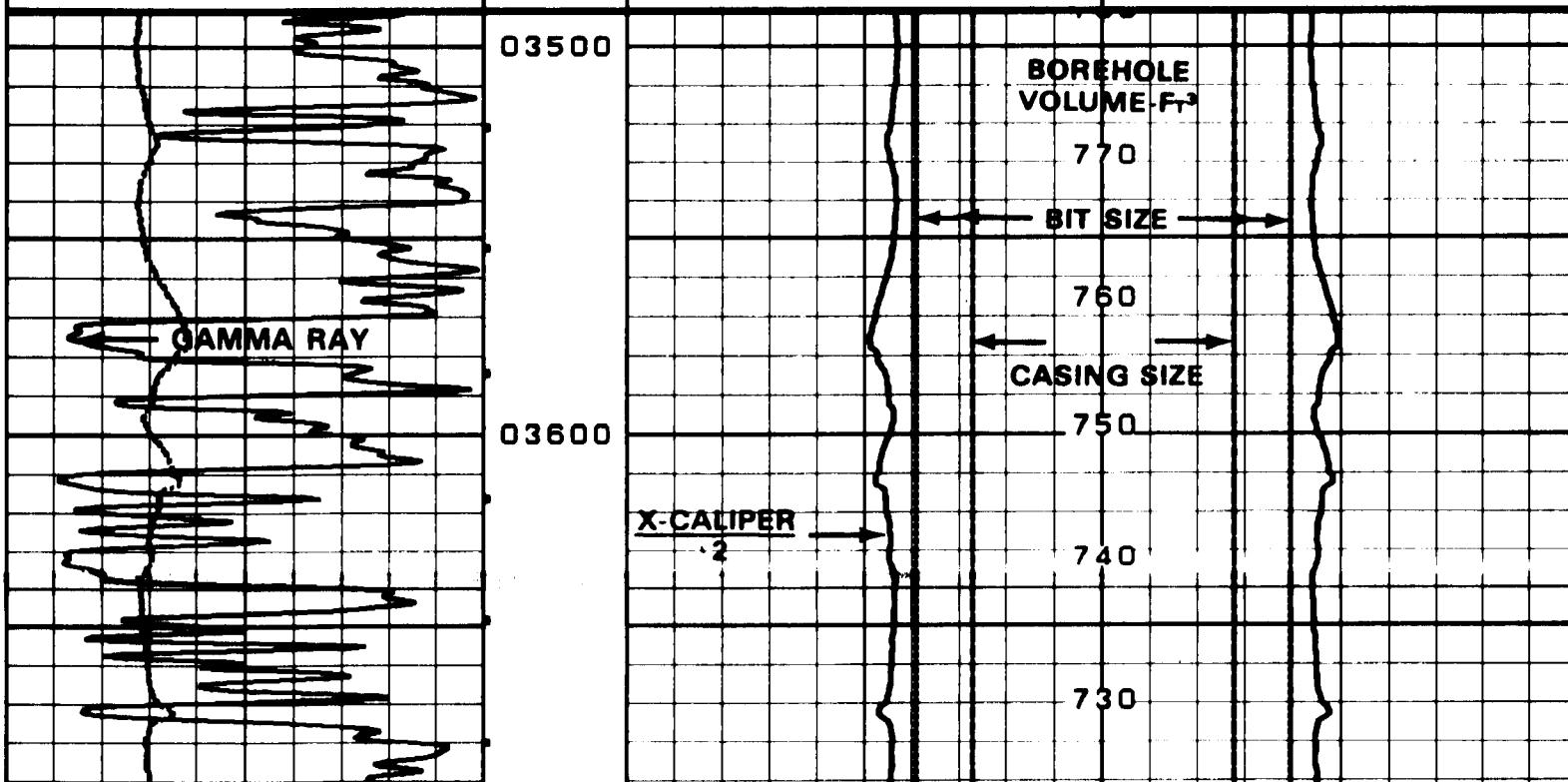
FIELD VERIFIER

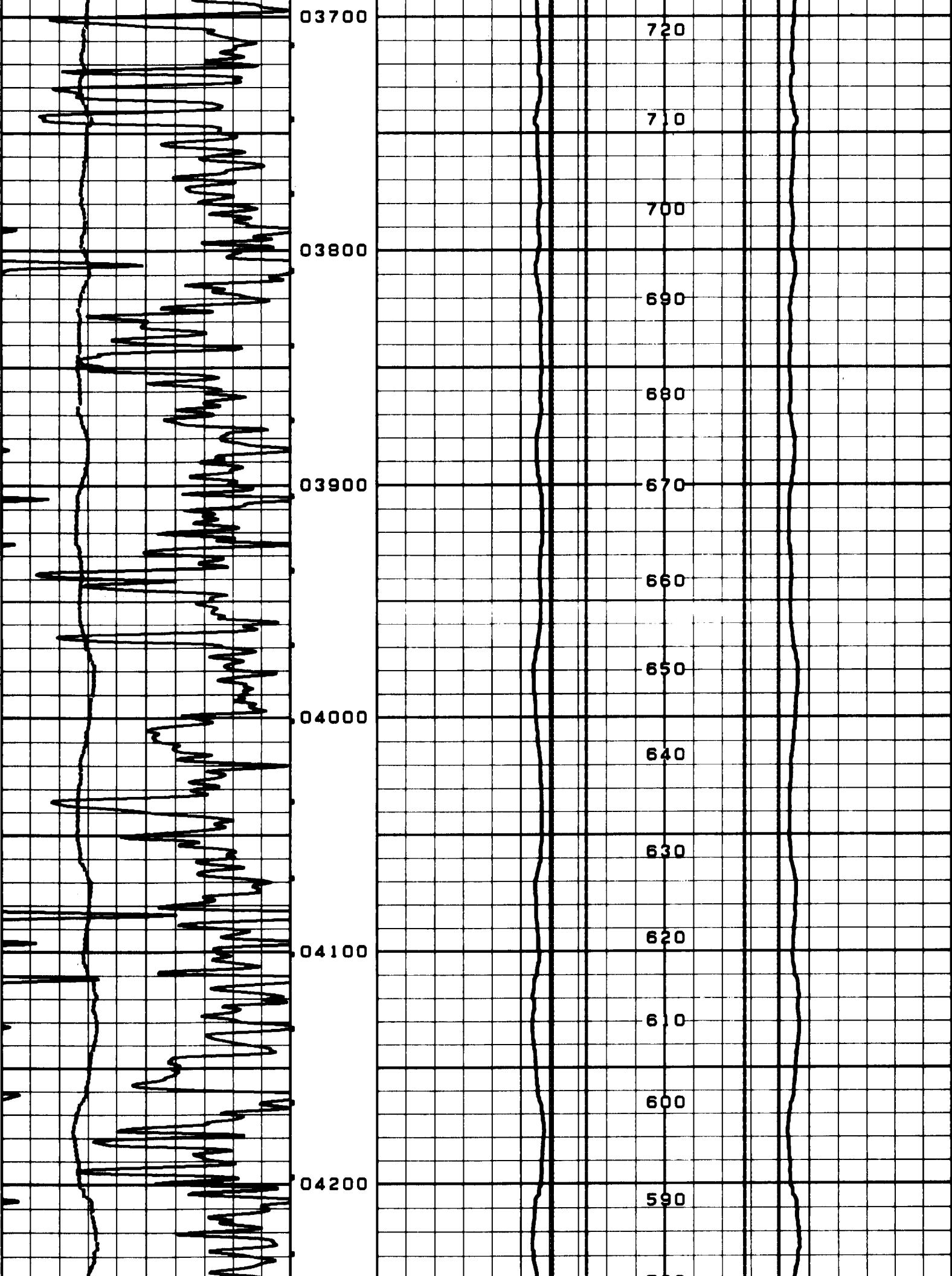
VERIFIER CHECK UNITS

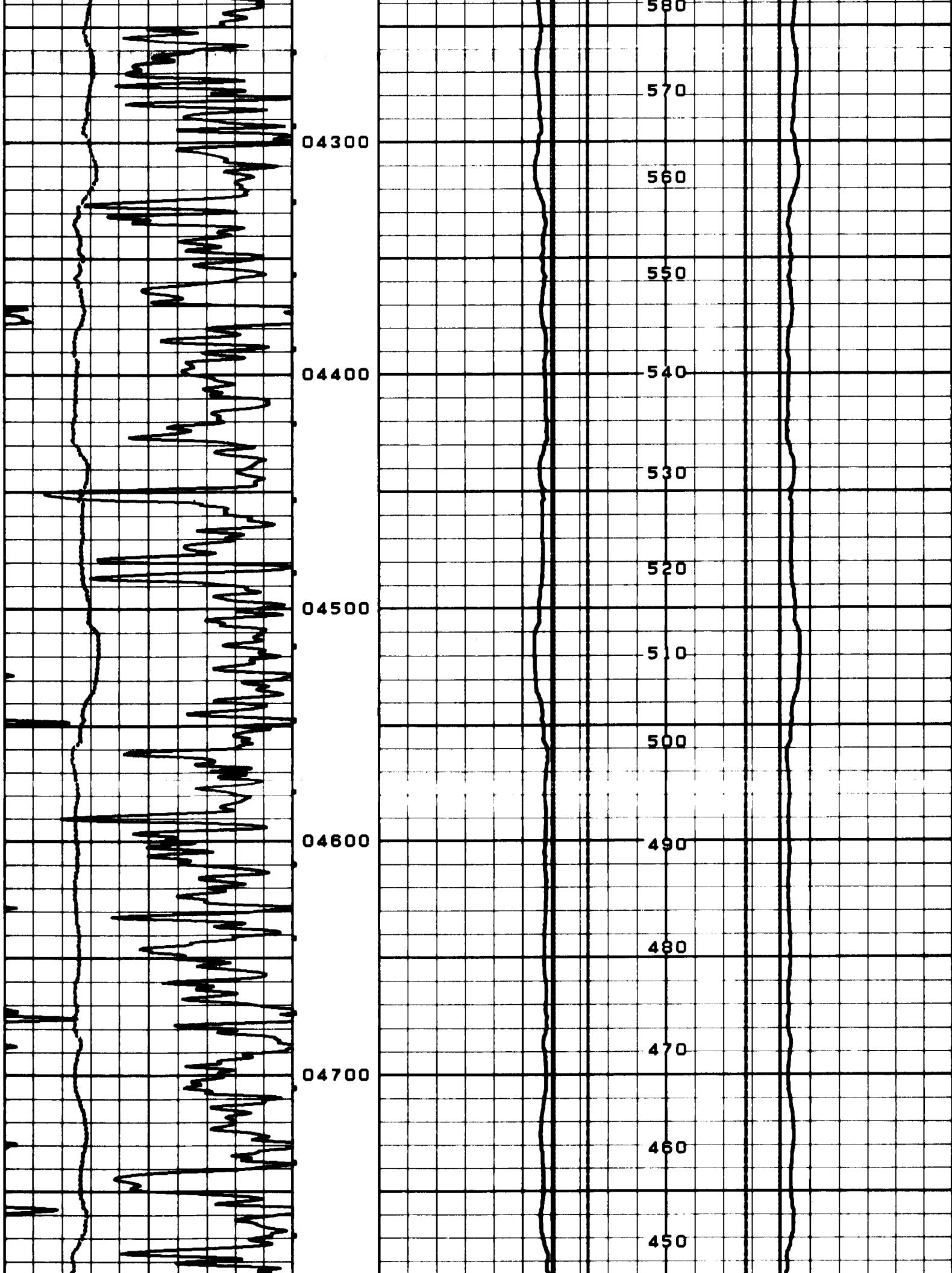
LS DETECTOR	273.2	CPS
SS DETECTOR	344.1	CPS
BULK DENSITY	2.364	G/CC

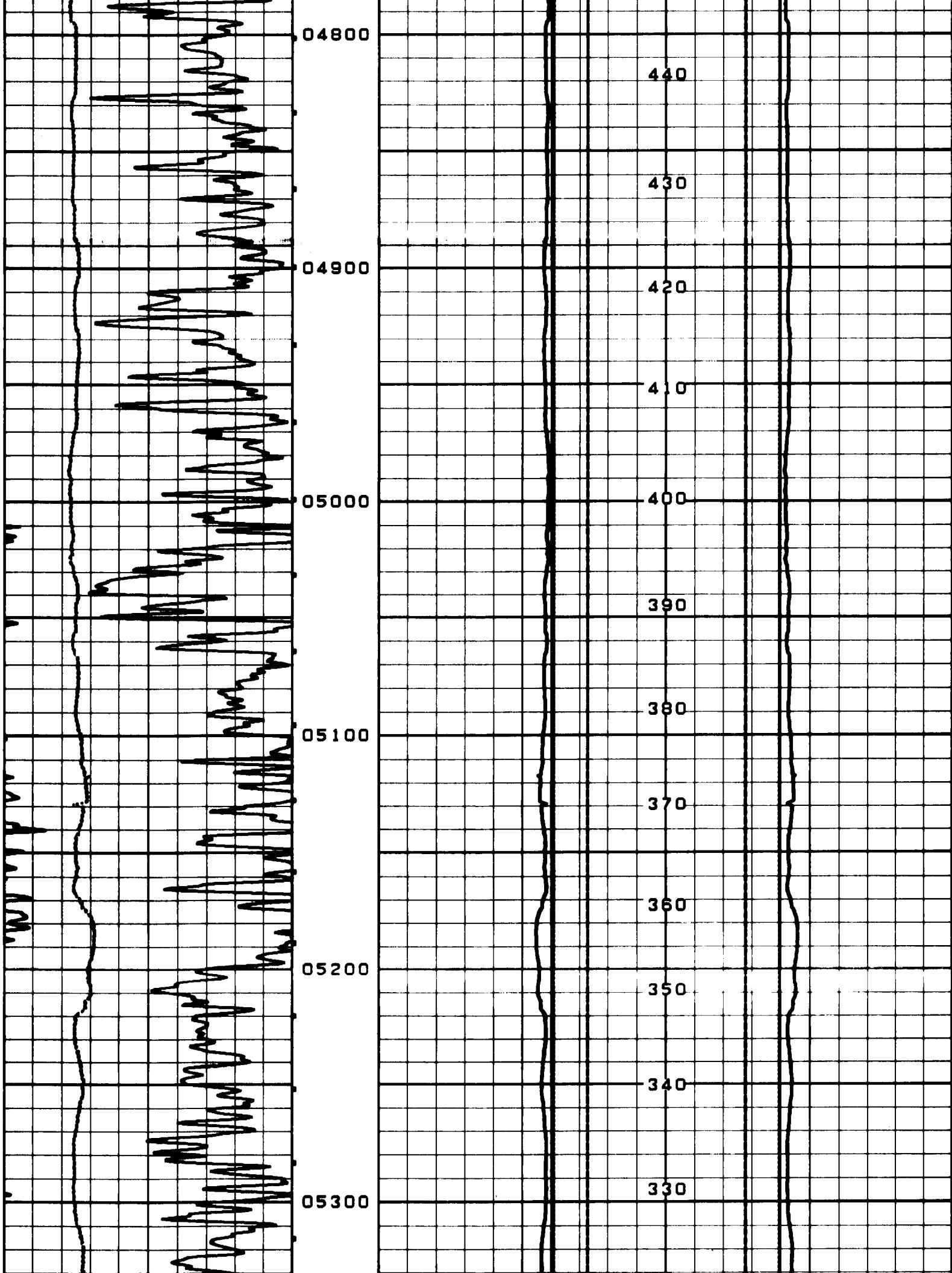
07-11-87 05:53 3491.0 359265 0069-22 0 0001-14 0

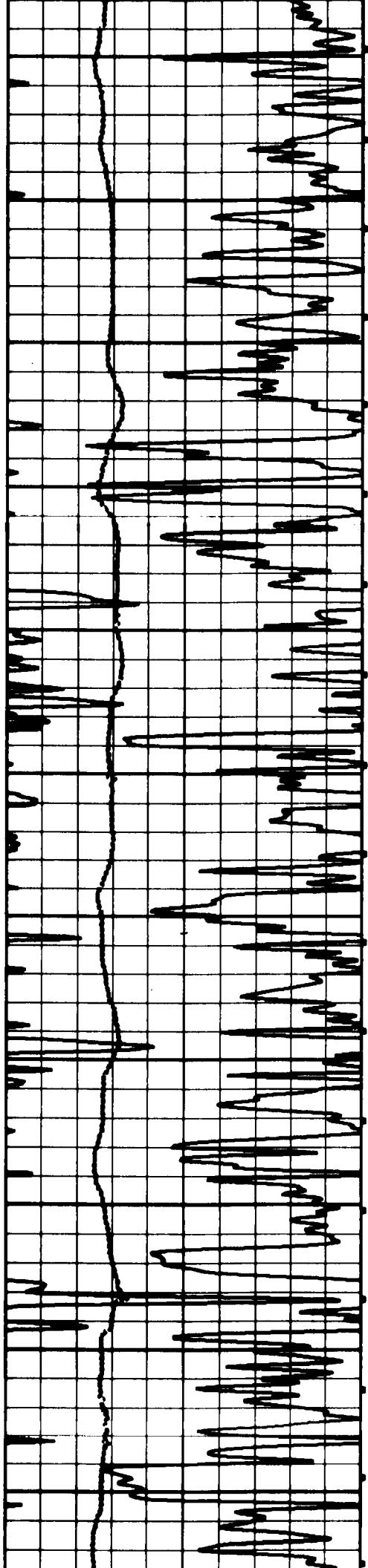
6 CALIPER X 16		10 X CALIPER/2	0 0 X CALIPER/2 10
0 GR API 150			











05400

05500

05600

05700

05800

320

310

300

290

280

270

260

250

240

230

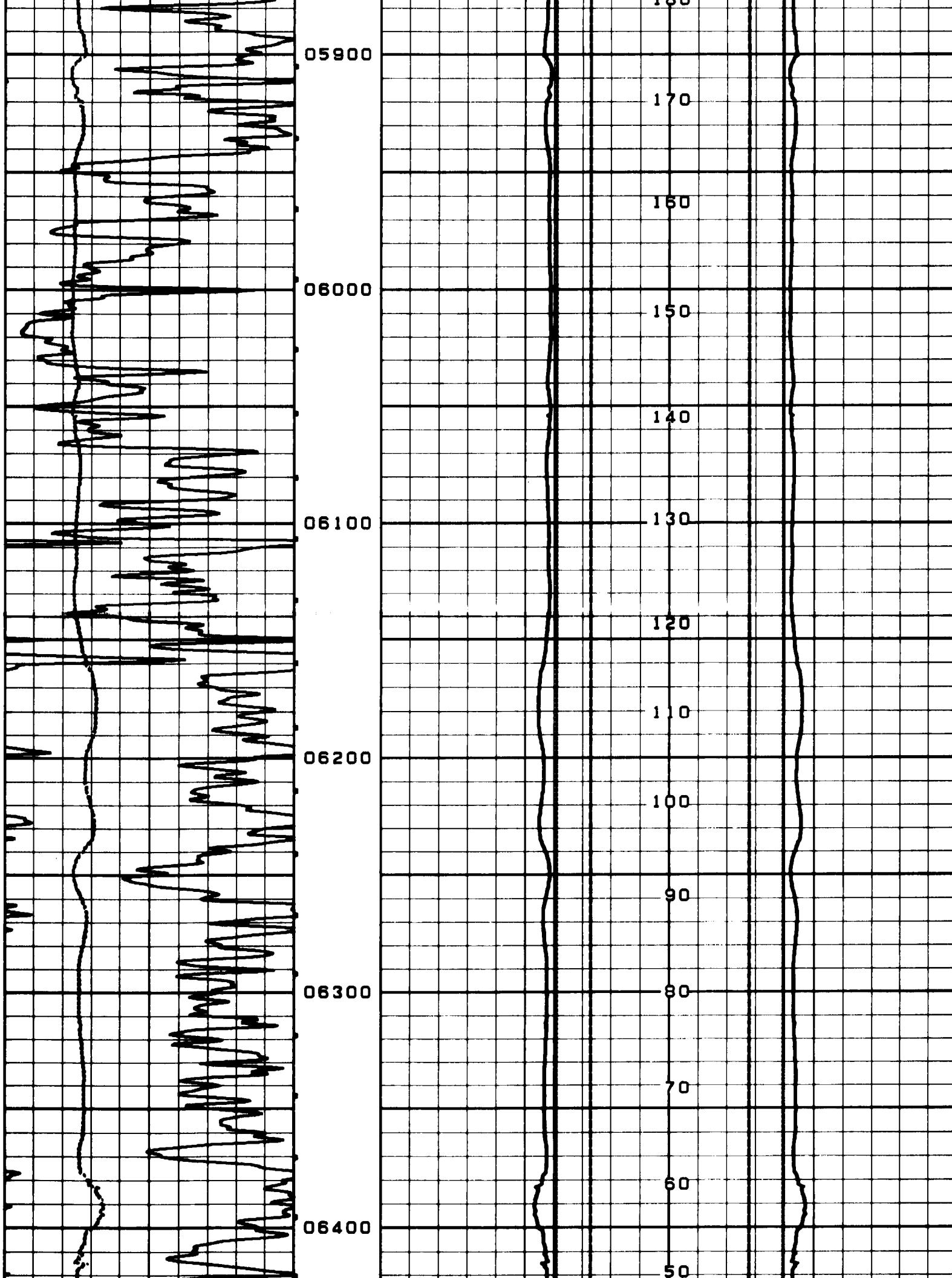
220

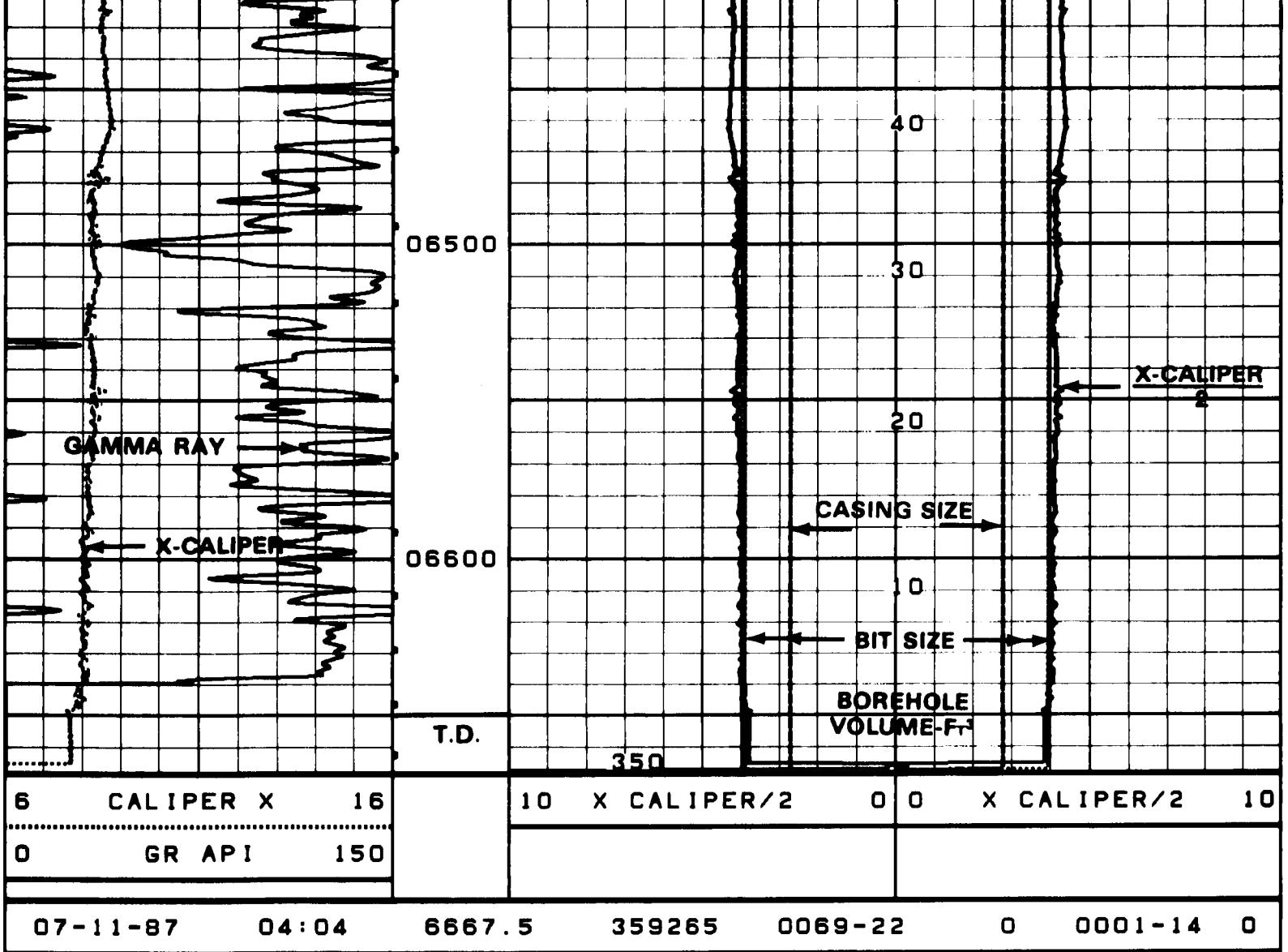
210

200

190

180





Company	COORS ENERGY COMPANY	6650
Well	UTE TRIBAL NO. 2-31	6652
Field	ANTELOPE CREEK	6657
County	DUCHESTER	6752.5
	State	6751.5
		6738.0



•GEARHART

DUAL LATEROLOG
MSFL

FILING NO.	COMPANY	COORS ENERGY COMPANY		
WELL	UTE TRIBAL NO. 2-31			
FIELD	ANTELOPE CREEK			
AUG '87	DUCHESSNE	STATE	UTAH	
RECD BY				
LOCATION: SALT OIL WELL VERNAL	NE / 4 KB	NW / 4 KB	Elev. 422' FT. Above Perm. Datum	Elev.: K.B. 6752.5 D.F. 6751.5 G.L. 6738.0
Drilling Measured from SEC 31 TWP 5S RGE 3N				Other Services CDL/CNC
Date Run No. Depth-Driller Depth-Logger Bottom Logged Interval Top Logged Interval Casing-Driller Casing-Logger Bit Size	7-11-87 ONE 6657 6650 6647 400 8 5/8" @ 410 414 7 7/8	GL KB KB	14.5 Elev. FNL X 2338' FNL 3	
Type Fluid in Hole Density pH	2% KCL 8.8 12	Viscosity Fluid Loss cc cc	27°F N-C cc cc cc	
Source of Sample	PJT			
Rm @ Meas. Temp. Rmf @ Meas. Temp. Rmc @ Meas. Temp.	@ °F N/A N/A	@ °F @ -- °F @ -- °F	@ °F @ °F @ °F	Depth
Source of Rmf Rmc	N/A	N/A		Scale Up Hole
Rm @ BHT Rmf @ BHT Rmc @ BHT	@ °F @ °F @ °F	@ °F @ °F @ °F	18013	Scale Down Hole

Changes in Mud Type or Additional Samples

Scale Changes

Date	Sample No.	Type Log	Depth	Scale Up Hole	Scale Down Hole
Depth-Driller					
Type Fluid in Hole					
Dens.	Visc.				
pH	Fluid Loss	cc	cc		
Source of Sample					
Rm @ Meas. Temp.	@ °F	@ °F			
Rmf @ Meas. Temp.	@ °F	@ °F	Run No.	Tool Type	GAMMA RAY
Rmc @ Meas. Temp.	@ °F	@ °F	ONE	Tool Position	OTHER
Source Rmf Rmc			34	S.O.	Tool No.
Rm @ BHT	@ °F	@ °F	18013	BOWSPRING	Tool Type
Rmf @ BHT	@ °F	@ °F			Tool No.
Rmc @ BHT	@ °F	@ °F			N/A

EQUIPMENT DATA

Run No.	LLD High	LLD Low	LLD Gain	LLS High	LLS Low	LLS Gain	CALIBRATION DATA			GAMMA RAY		
							API Scale	BKG.	STD.	SEE CALIBRATIONS		
				PLEASE SEE DIGITAL CALIBRATIONS			15					

REMARKS:

NOTICE: Gearhart Industries, Inc. cannot and does not guarantee the accuracy or correctness of any log data or of any interpretation thereof and shall not be liable or responsible for any loss, cost, damage or expense incurred or sustained by Customer resulting from any log data or interpretation made by Gearhart Industries, Inc. or any of its agents, servants or employees. Neither log data nor interpretation thereof should be relied upon as the sole basis for any drilling, completion, well treatment or production decision or any other procedure. Unless there is presently in effect a master or other specific or general contract intended to extend and apply hereto, this Log is provided in accordance with Gearhart Industries, Inc.'s General Terms and Conditions as set out in its current price schedule.

GEARHART INDUSTRIES, INC.

07-11-87 06:37 400.0 359265 0093-55 0 0

10000 TENSION (LBS) 0

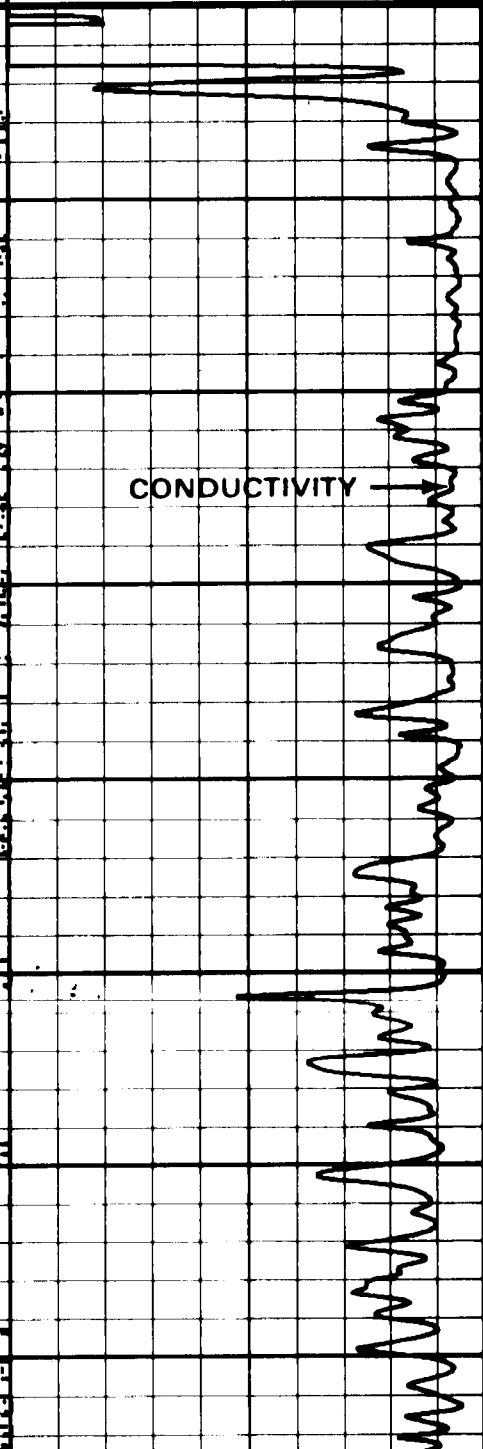
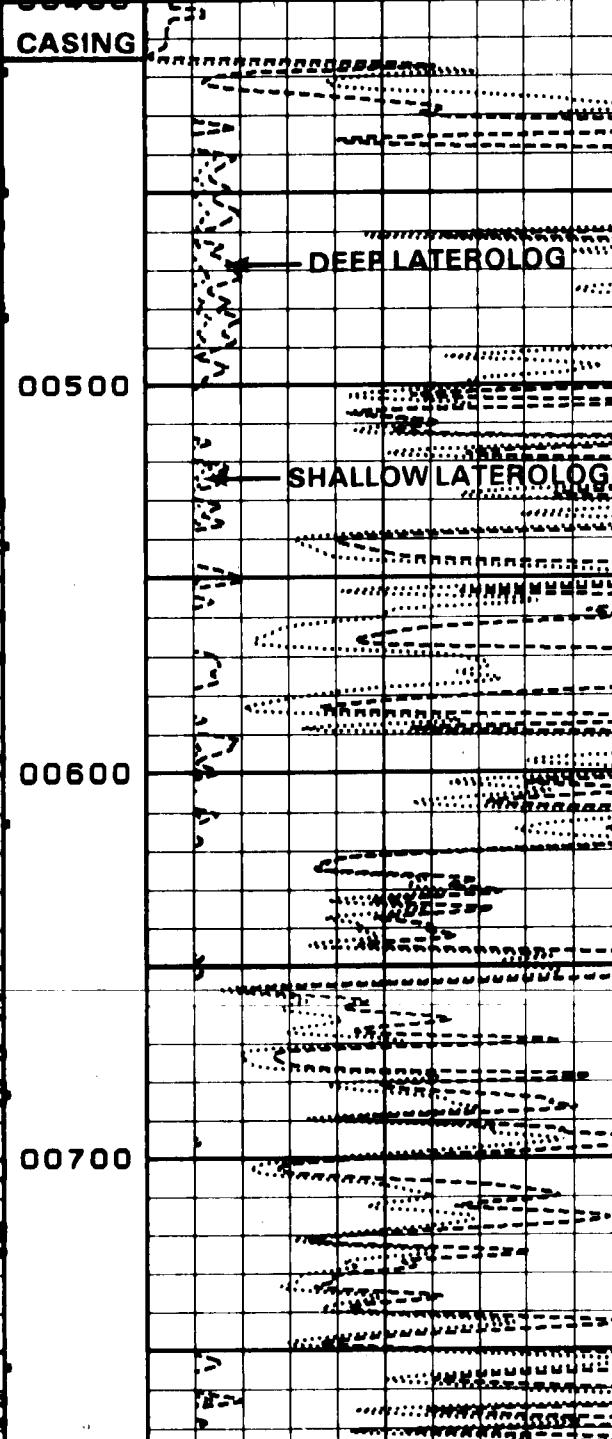
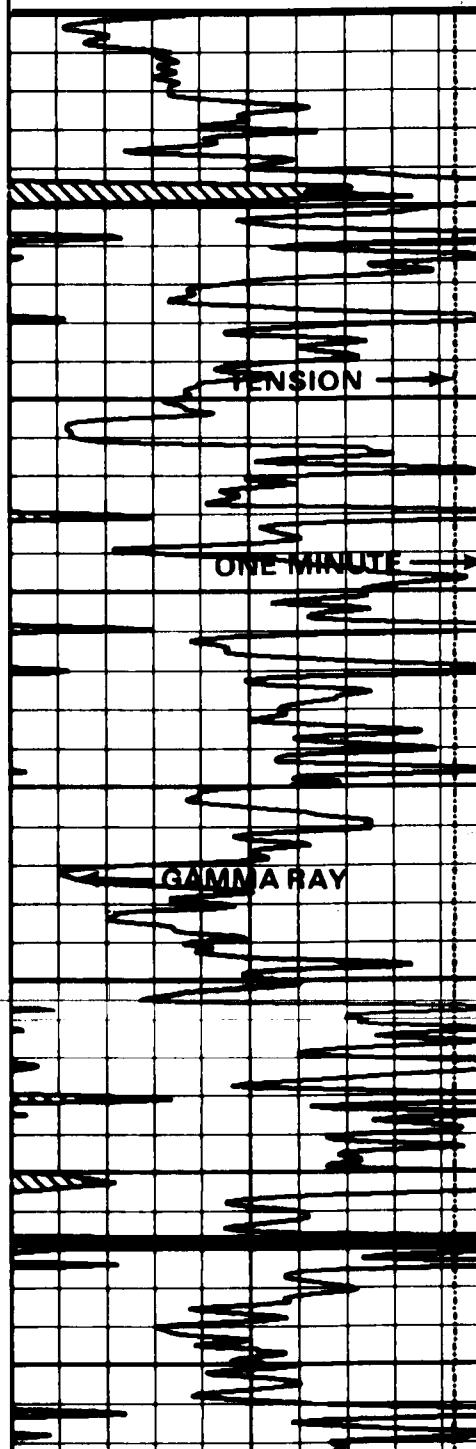
6 CAL-X (IN) 18

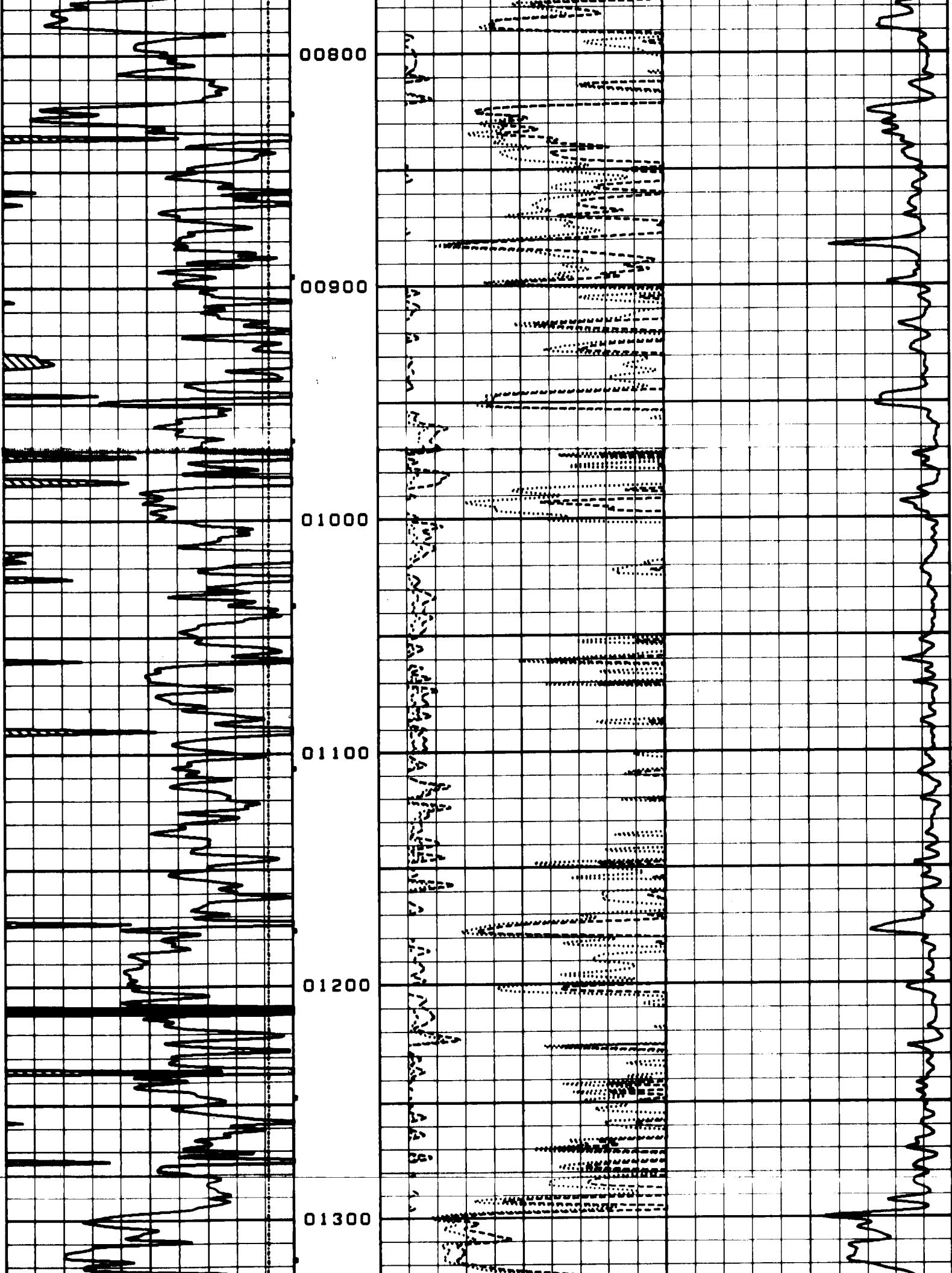
0 GR (API) 150

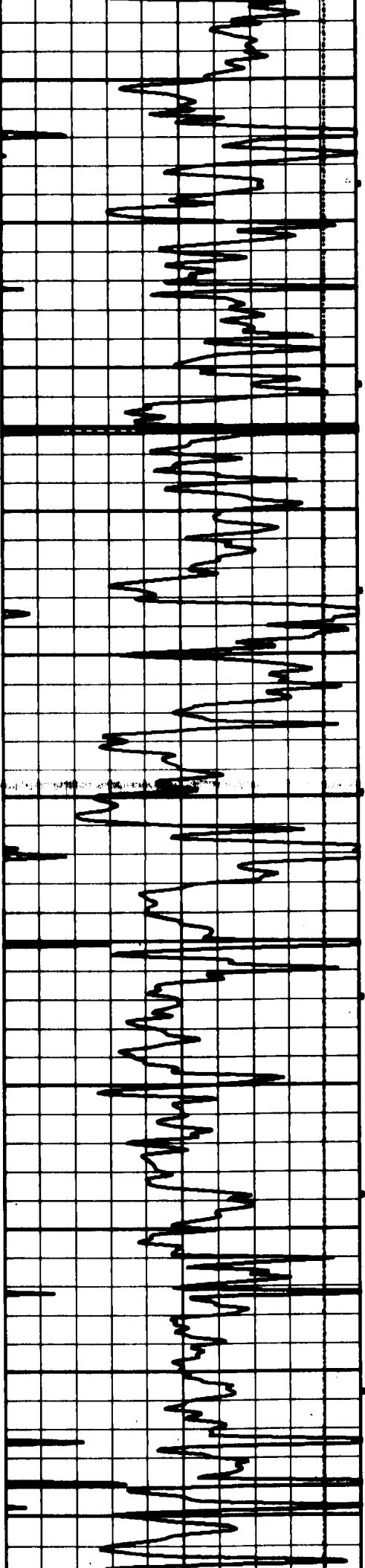
0 R-LLS (Ω -M) 50

0 R-LLD (Ω -M) 50

200 C-LLD (MMHGS) 0







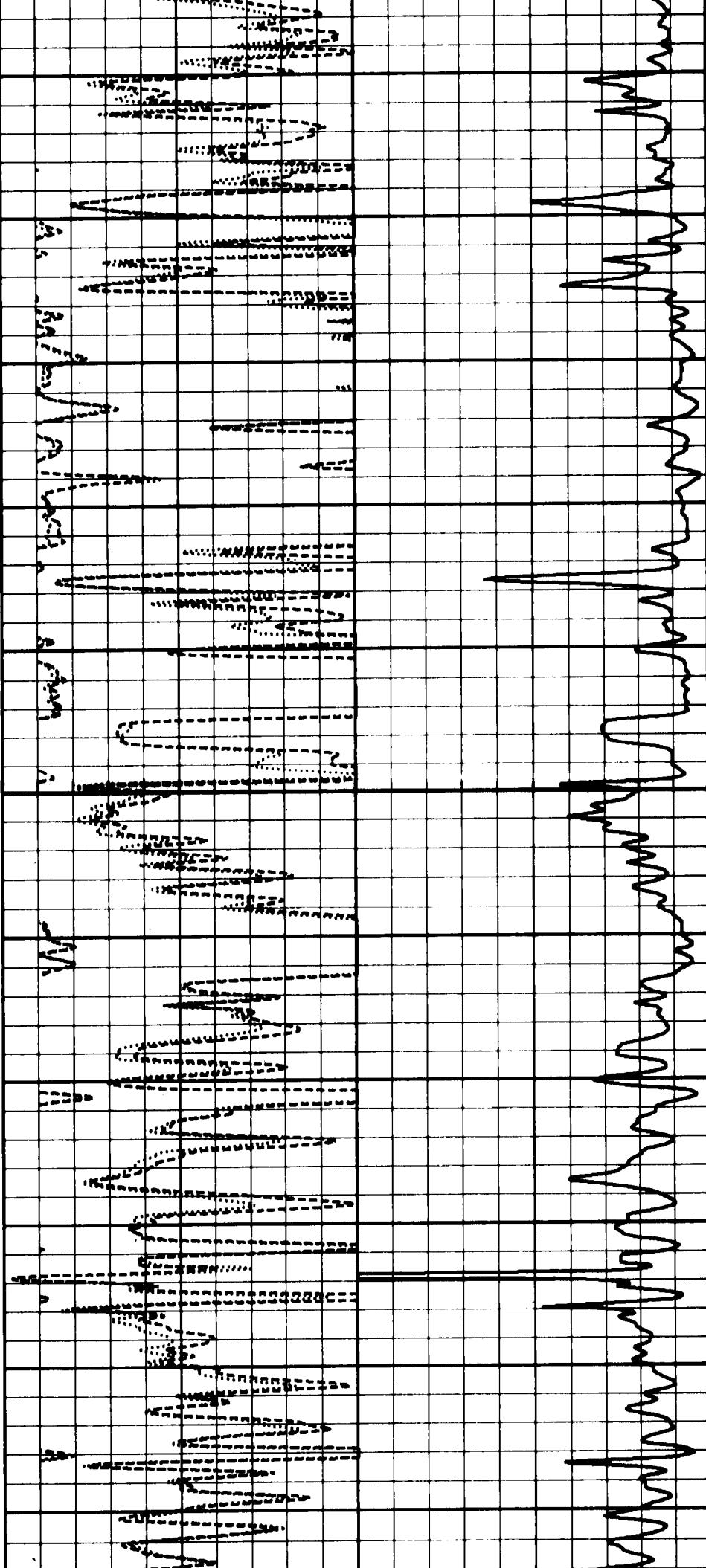
01400

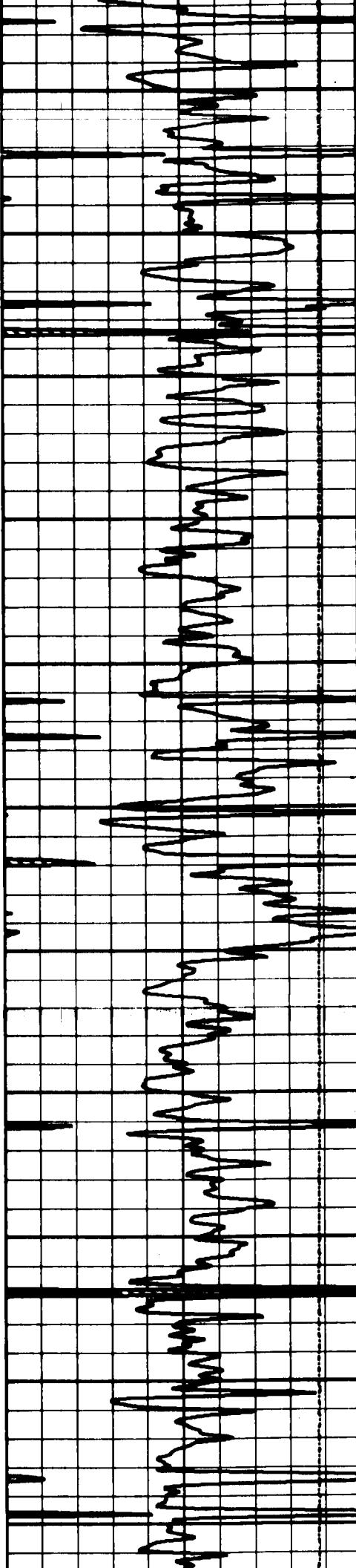
01500

01600

01700

01800





01900

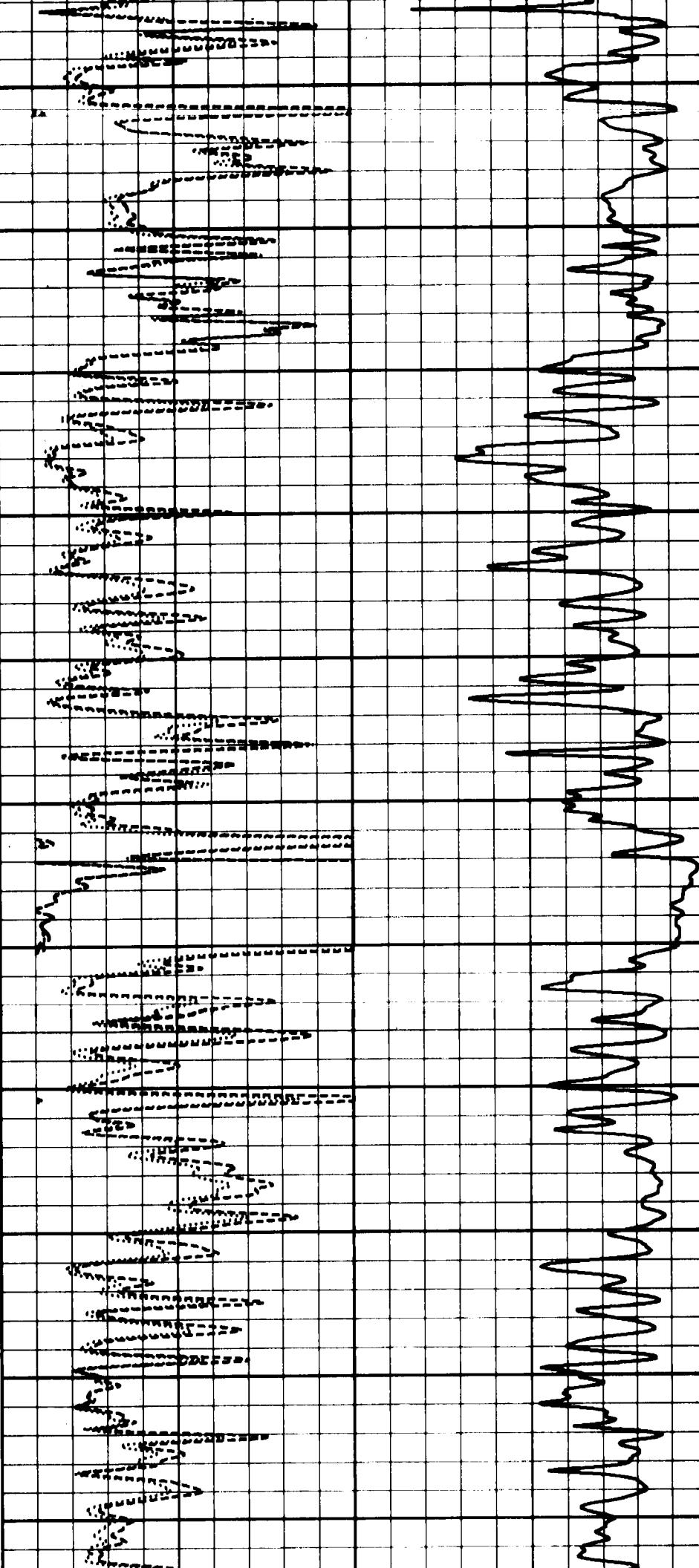
02000

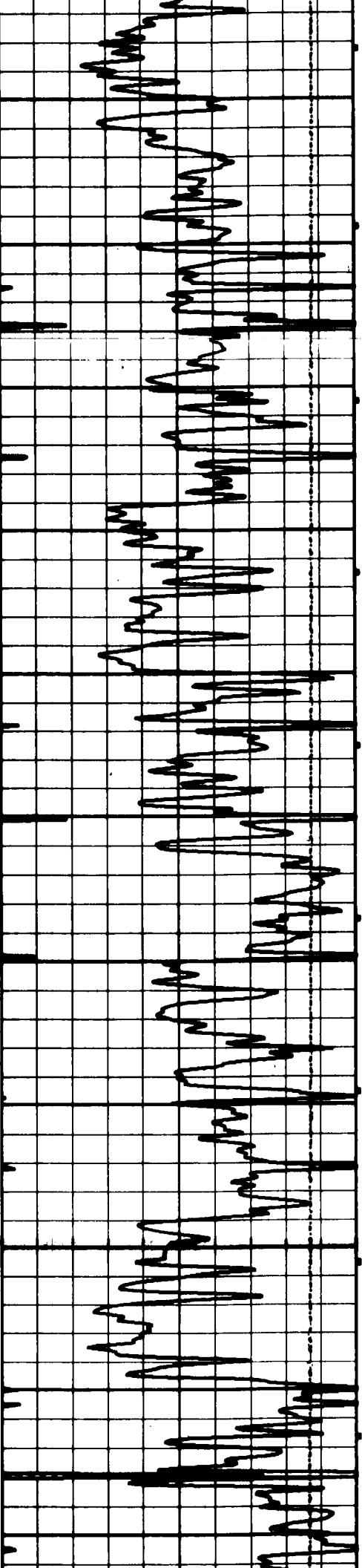
02100

02200

02300

02400





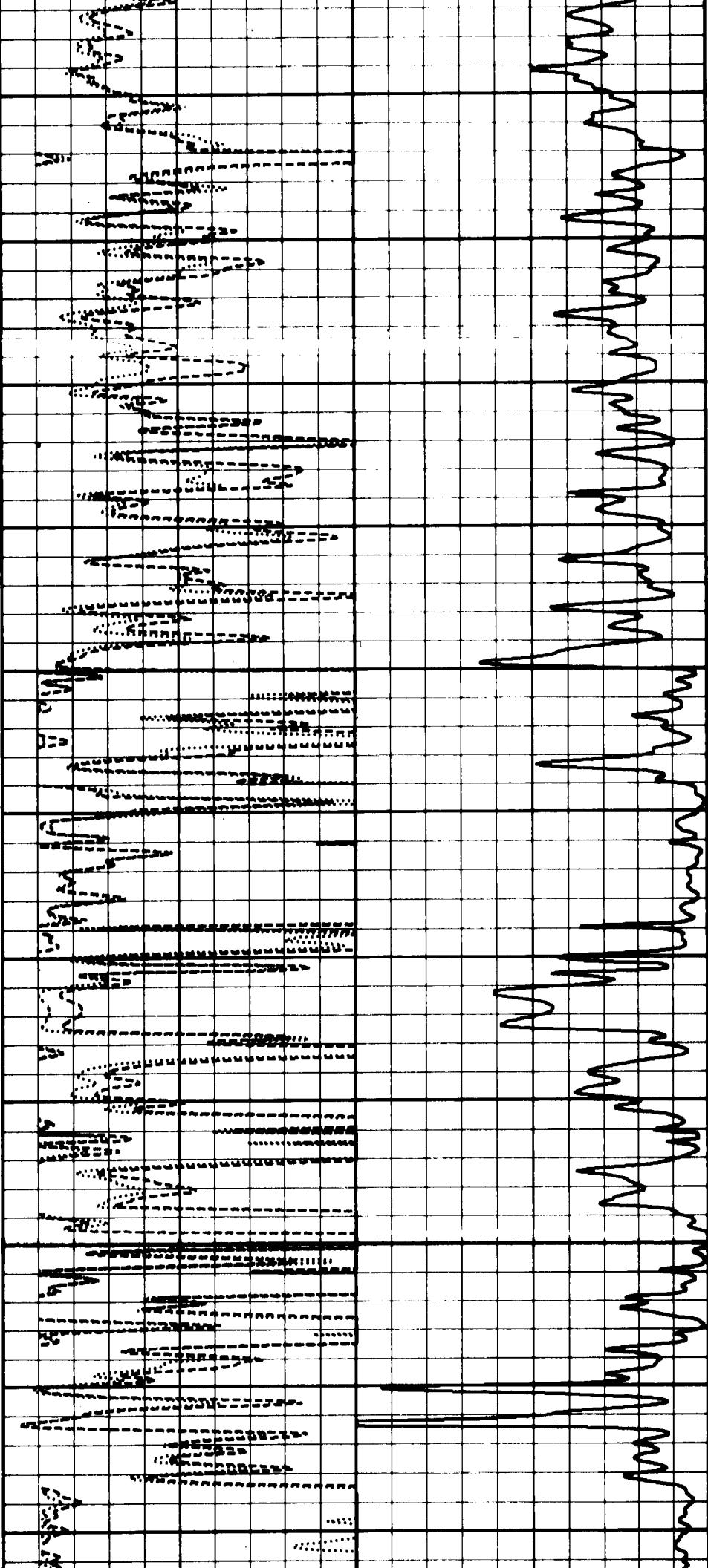
02500

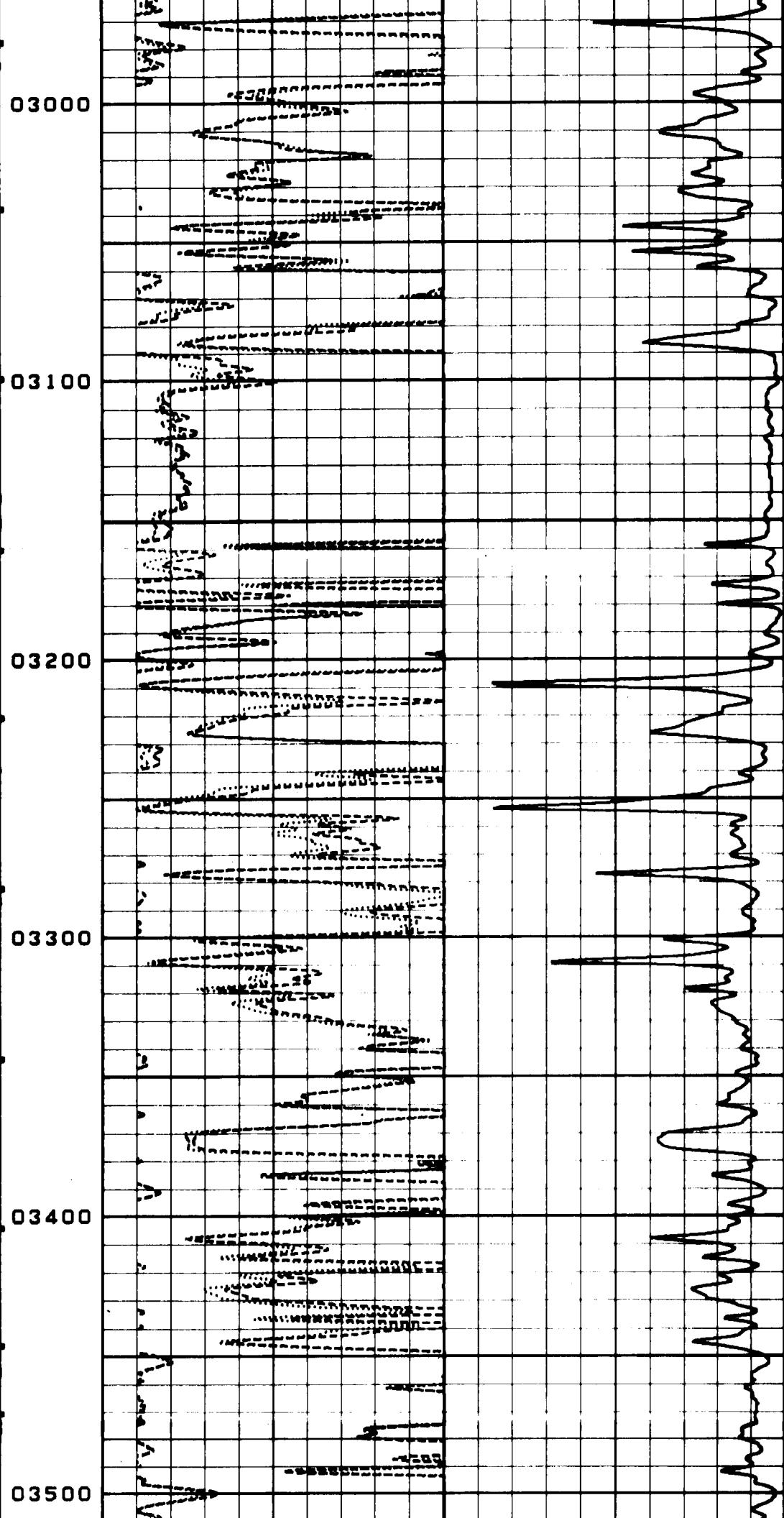
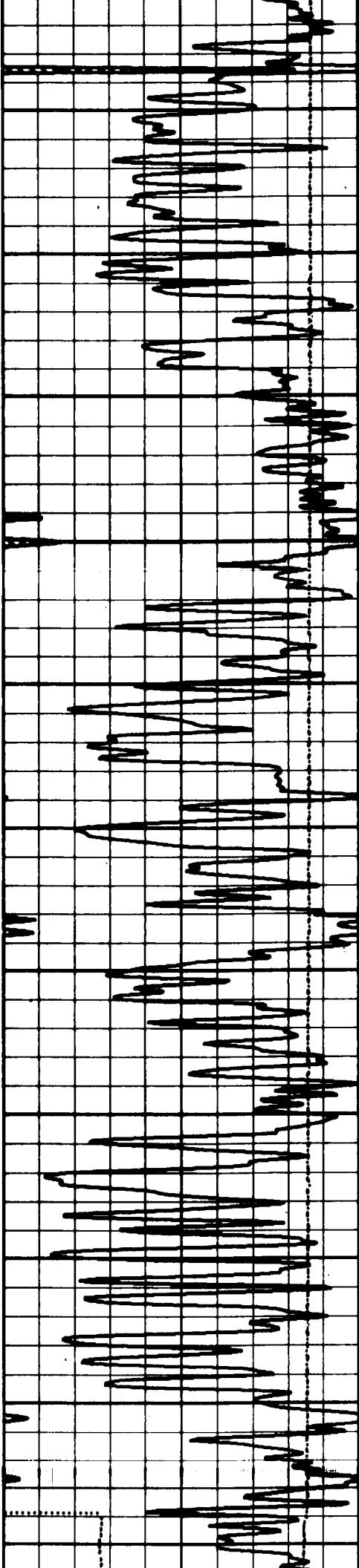
02600

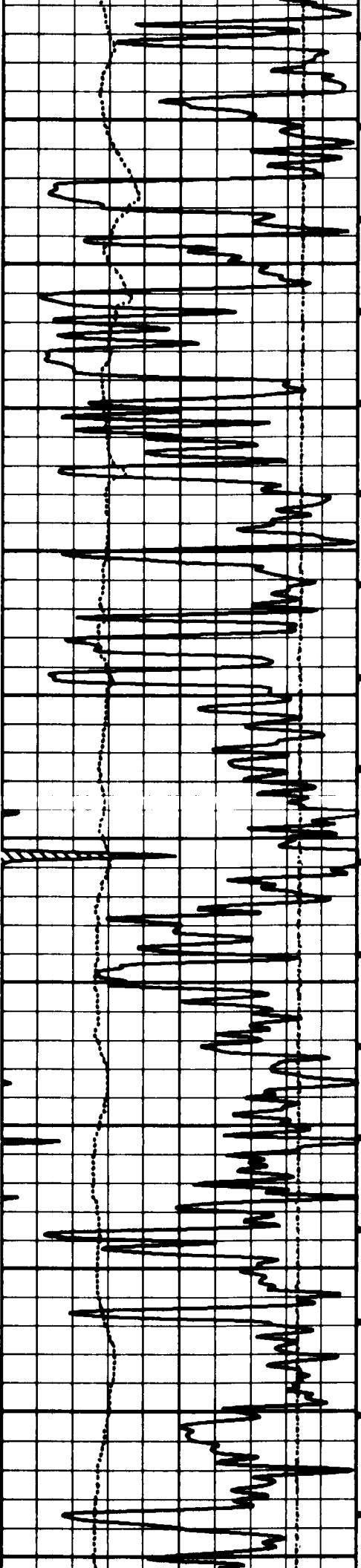
02700

02800

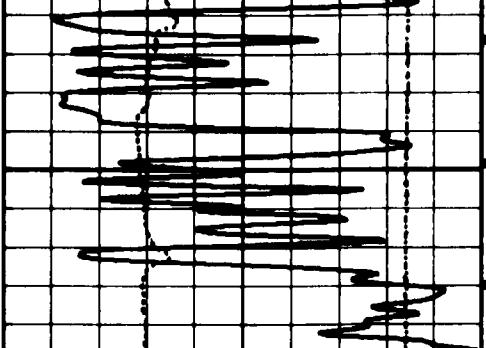
02900



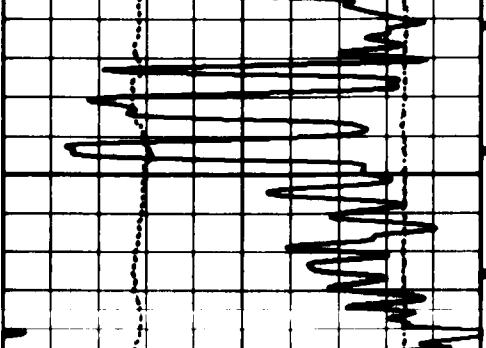




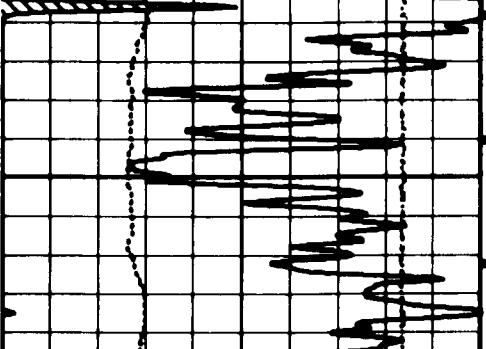
03600



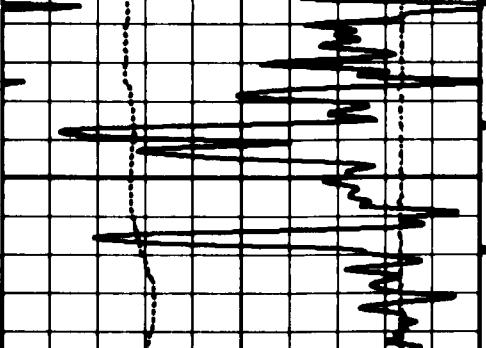
03700



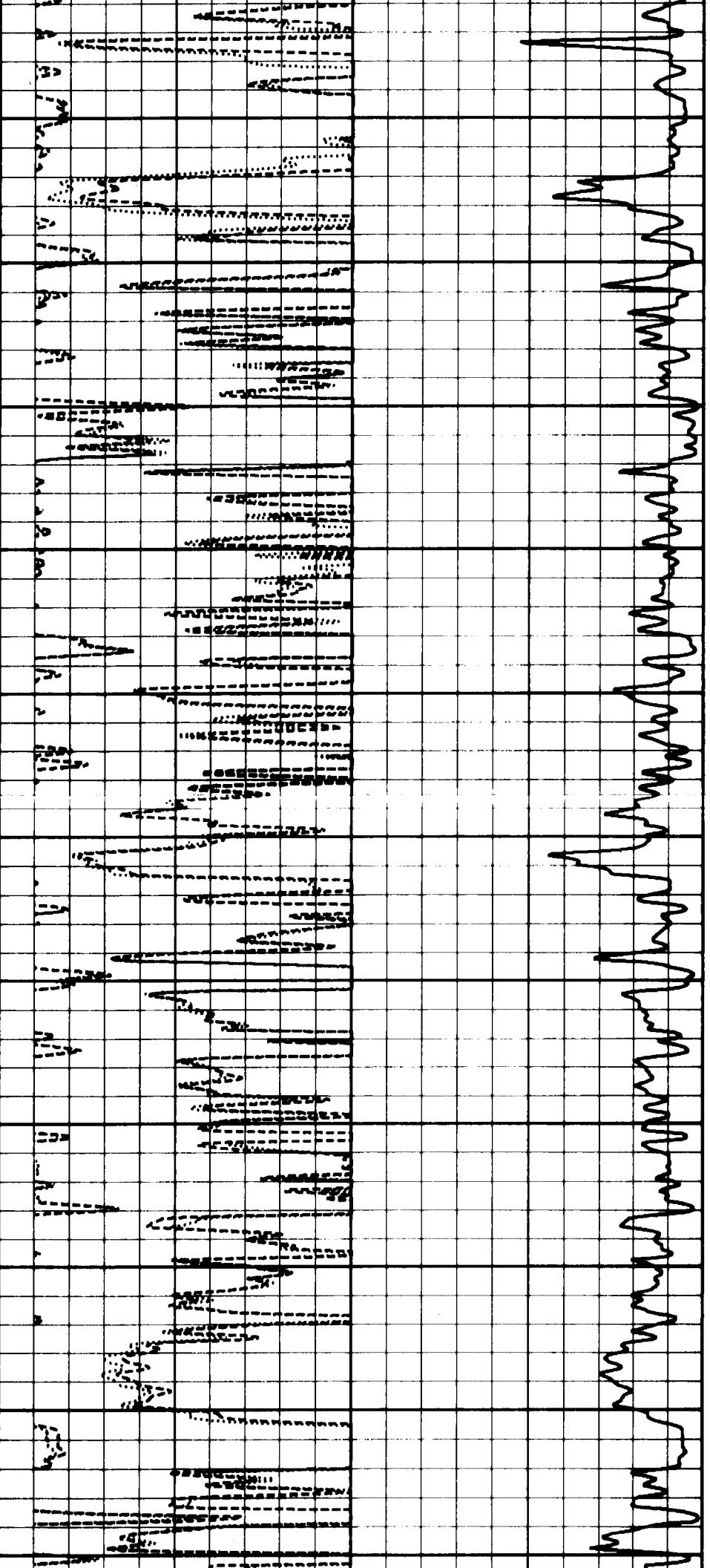
03800



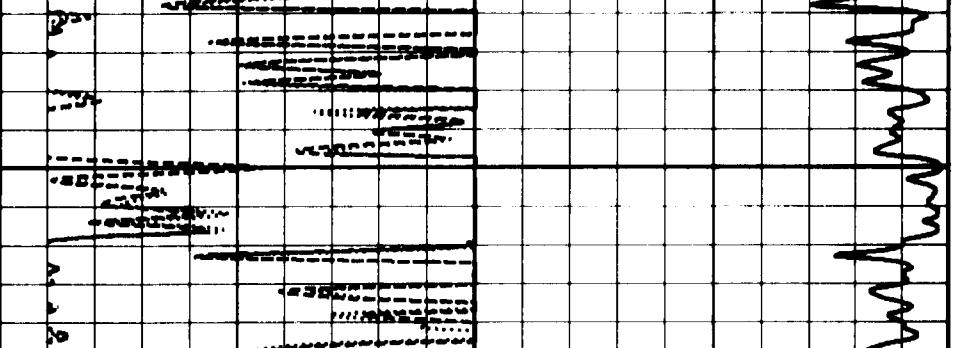
03900



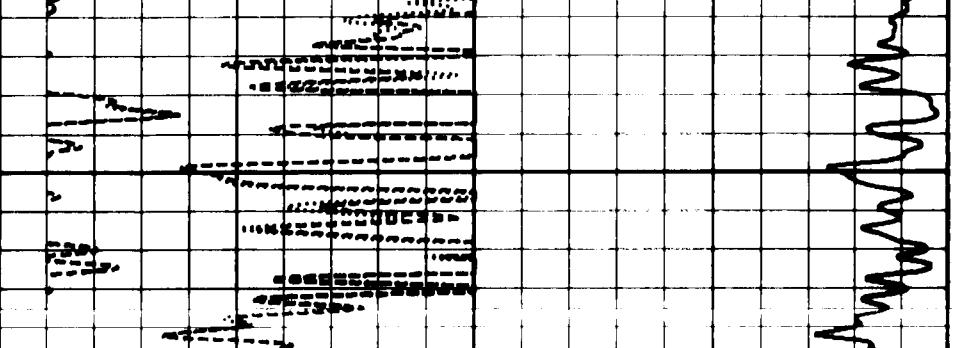
04000



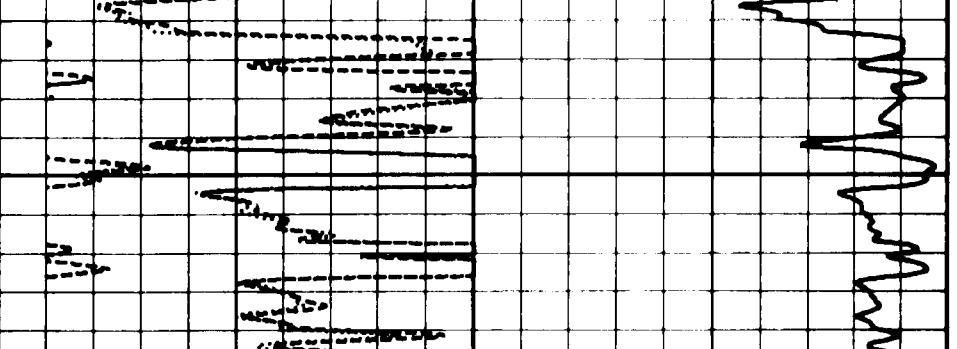
03600



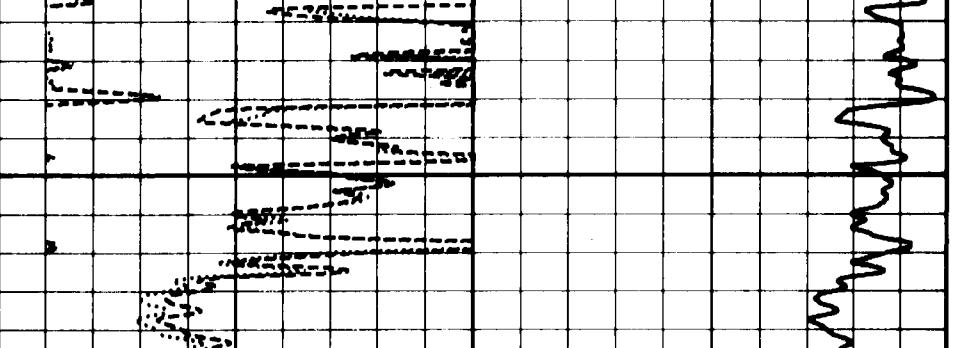
03700



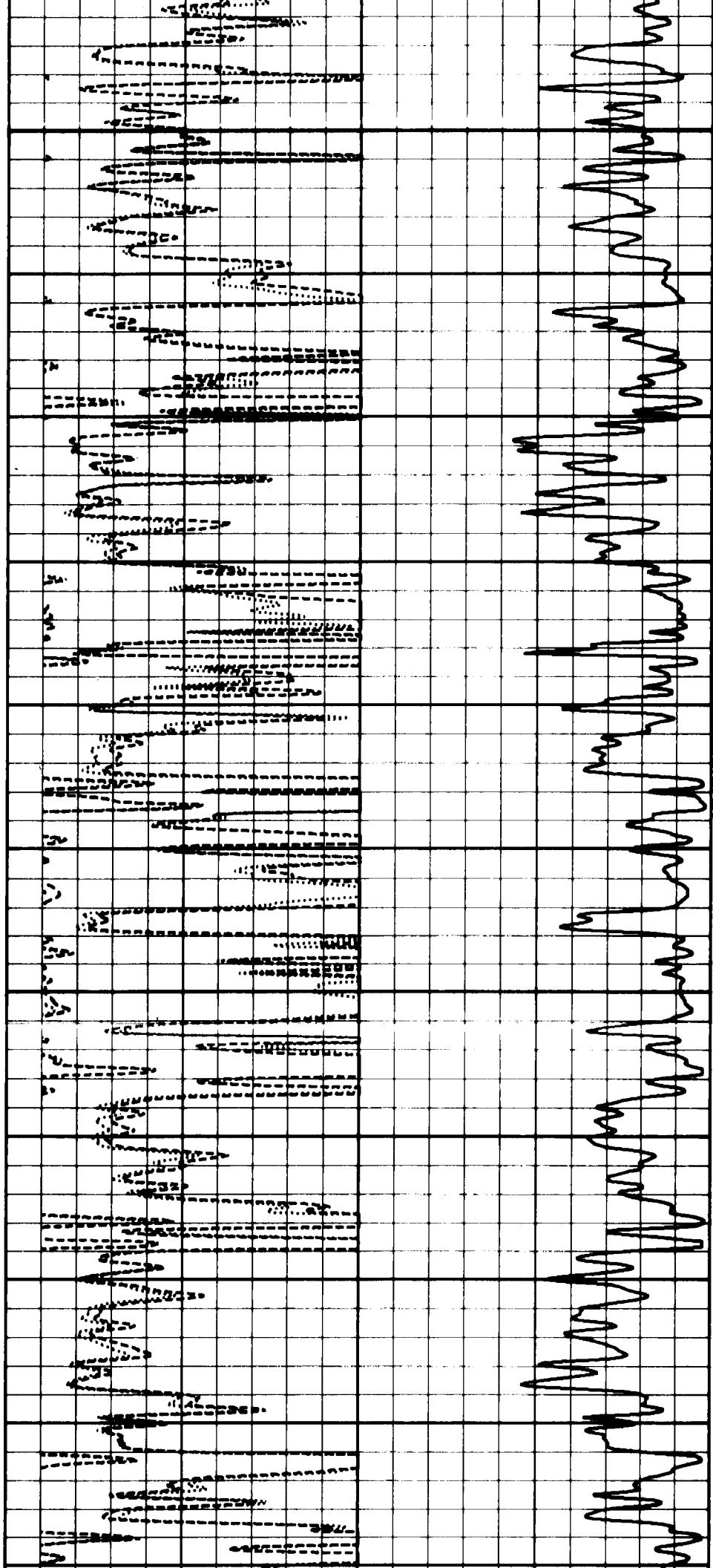
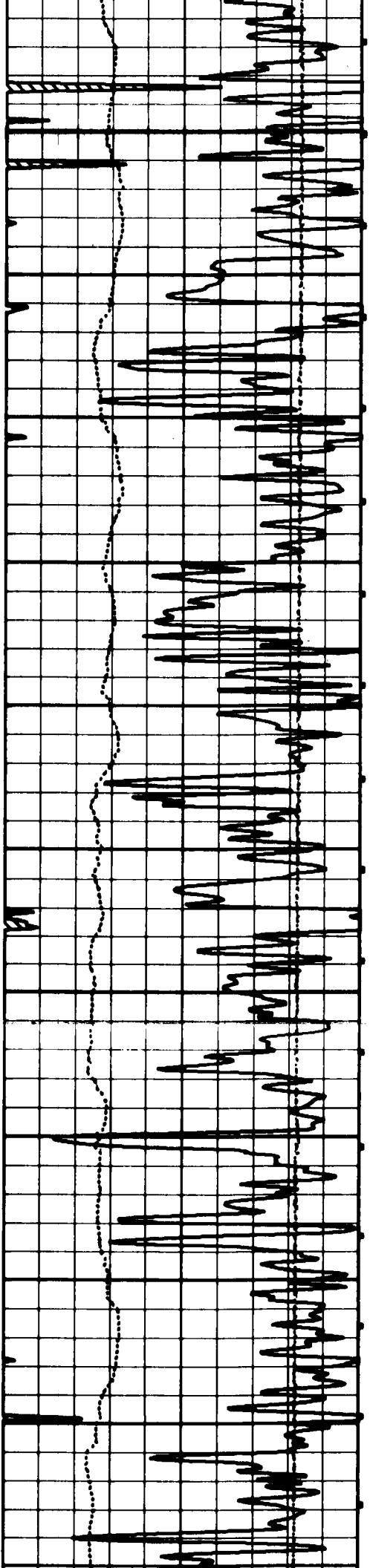
03800

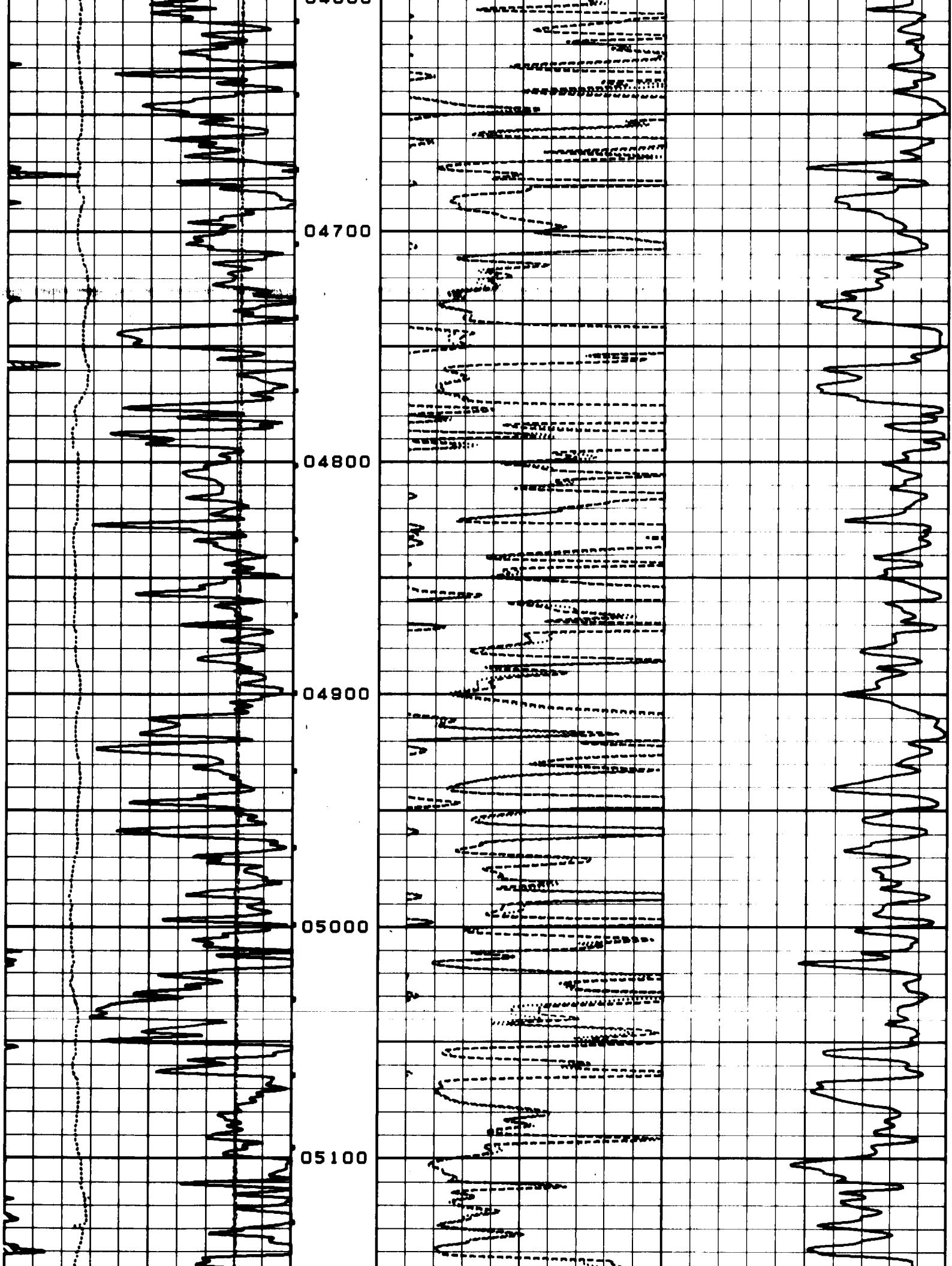


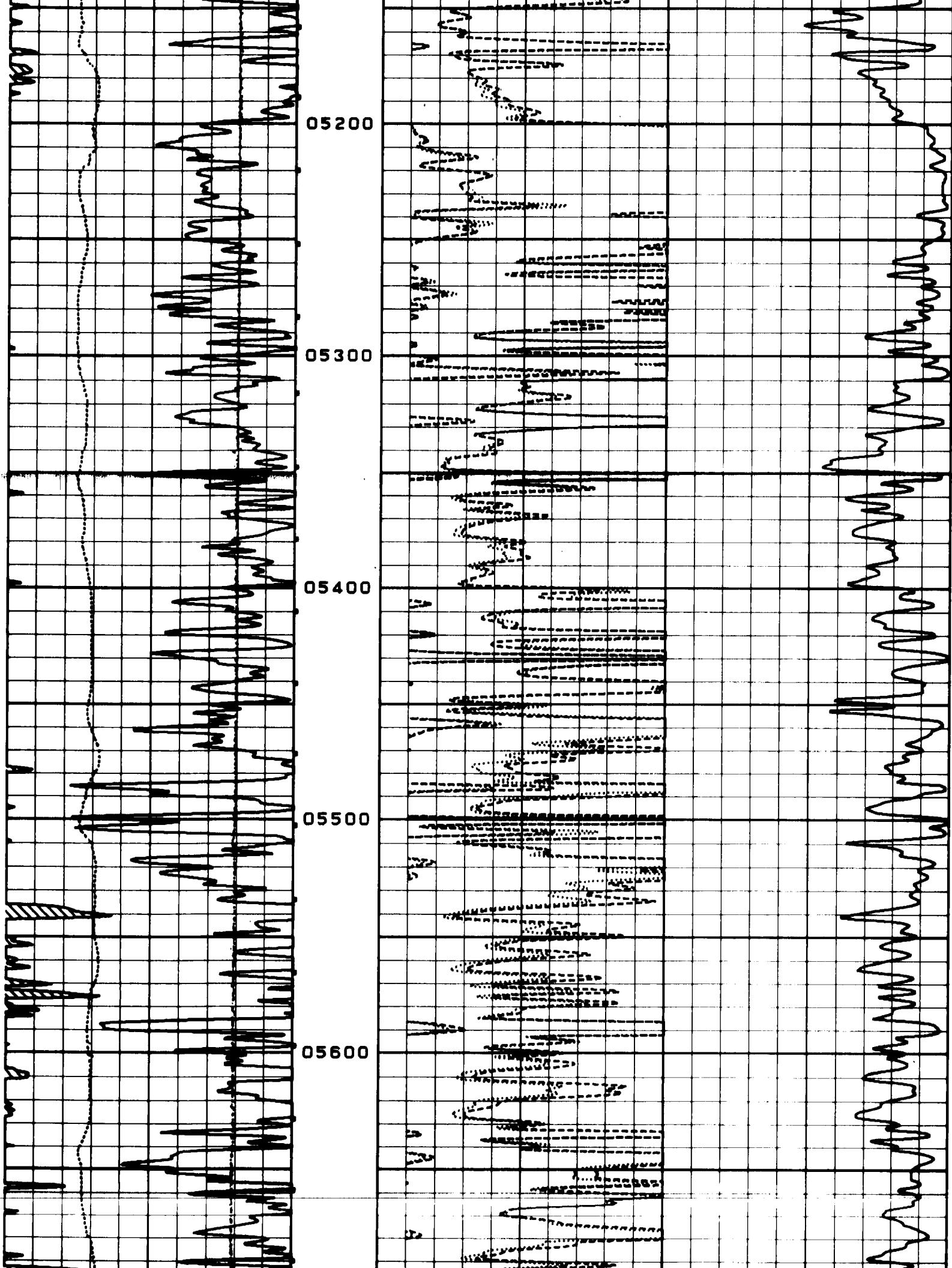
03900

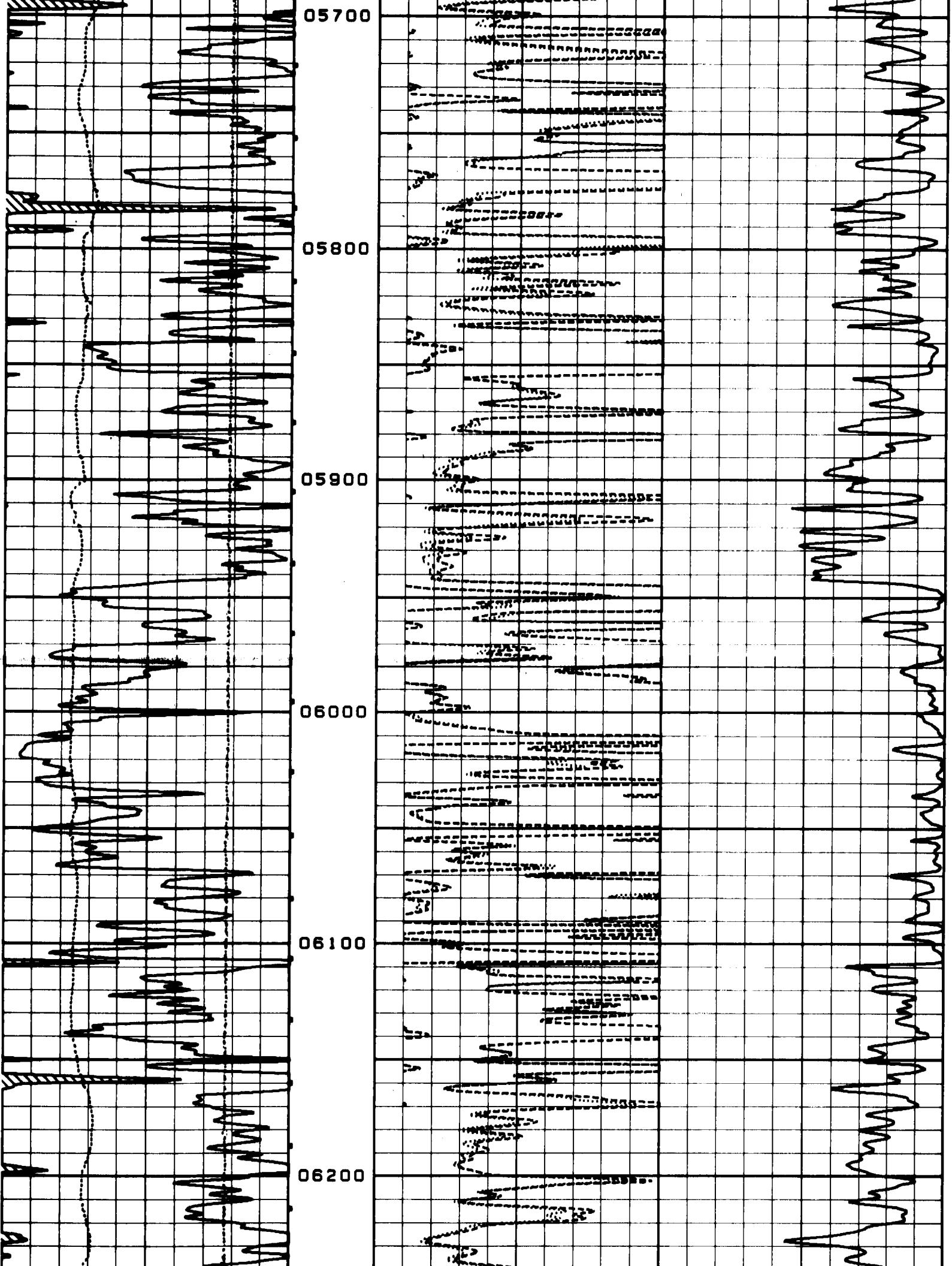


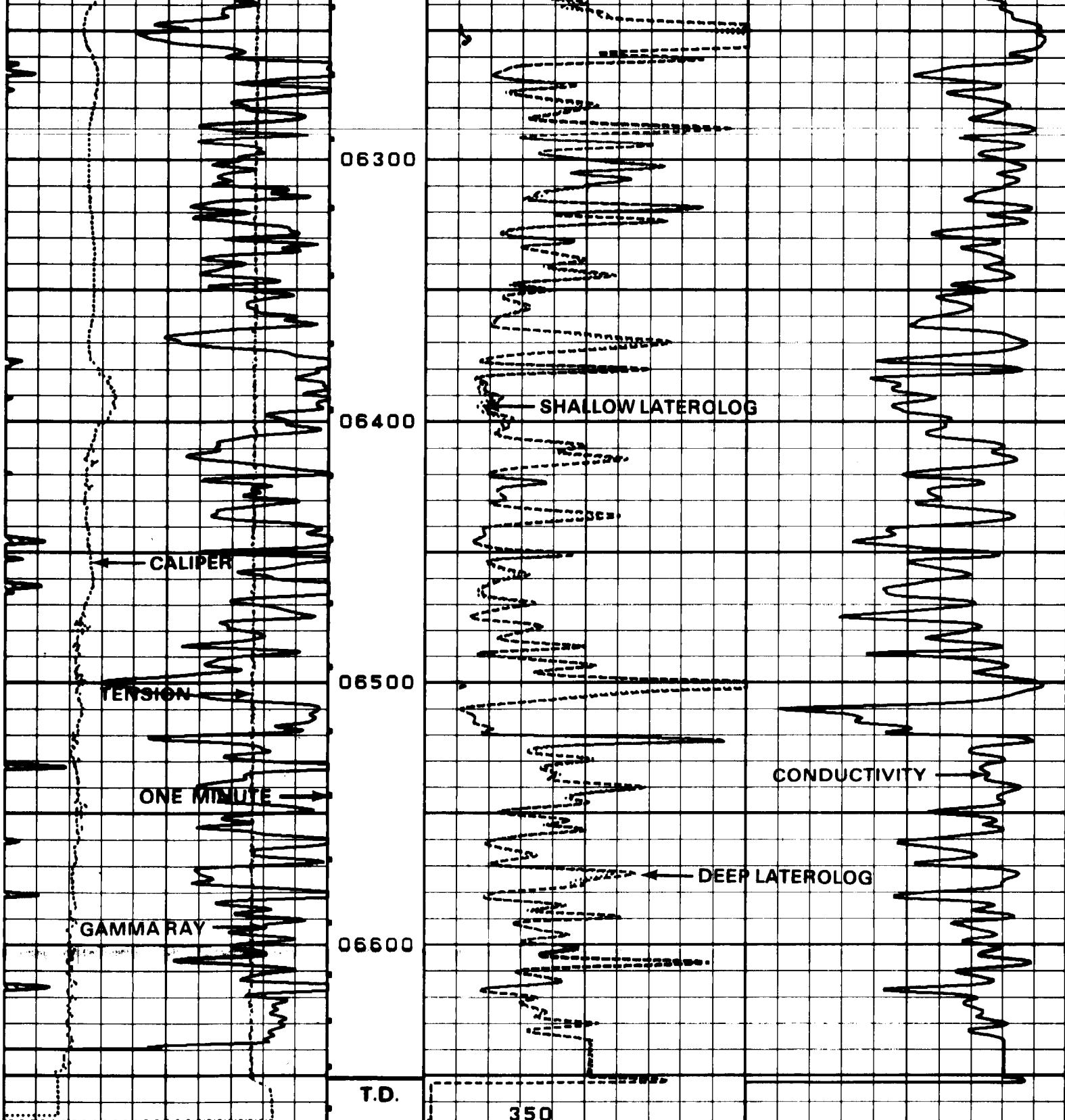
04000











10000	TENSION (LBS)	0
6	CAL-X (IN)	18
0	GR (API)	150

0	R-LLS ($\Omega\text{-M}$)	50
0	R-LDD ($\Omega\text{-M}$)	50
200	C-LDD (MMHOS)	0

07-11-87	04:04	6667.5	359265	0093-55	0	0
----------	-------	--------	--------	---------	---	---

07-11-87	06:37	400.0	359265	0093-55	0	0
----------	-------	-------	--------	---------	---	---

10000 TENSION (LBS) 0

6 CAL-X (IN) 16

0 GR (API) 150

0.2

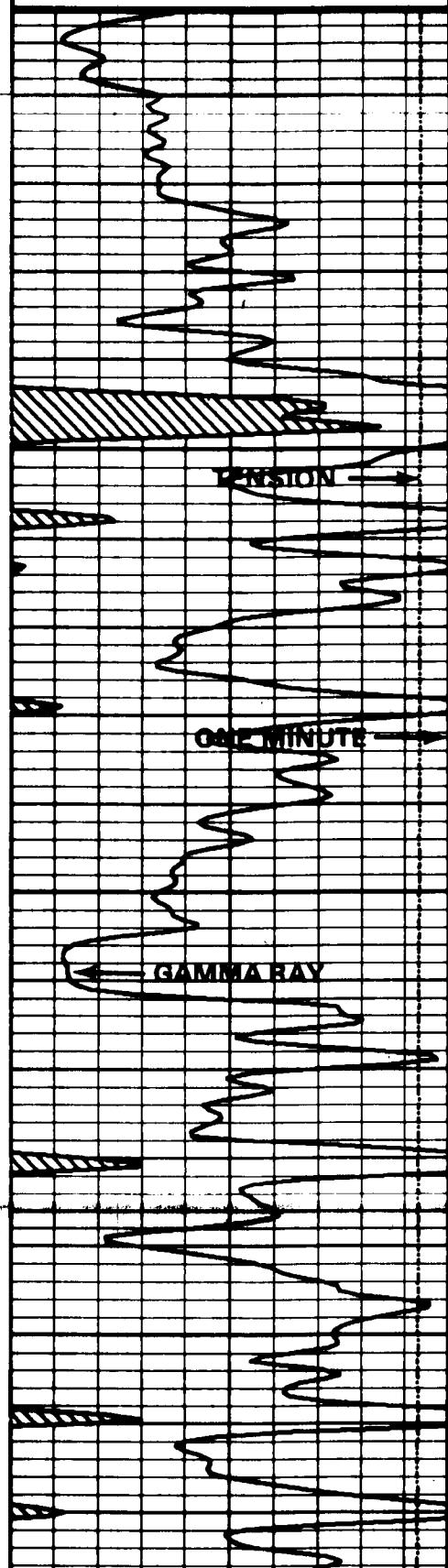
R-LLS ($\Omega\text{-M}$)

2000

0.2

R-LLD ($\Omega\text{-M}$)

2000

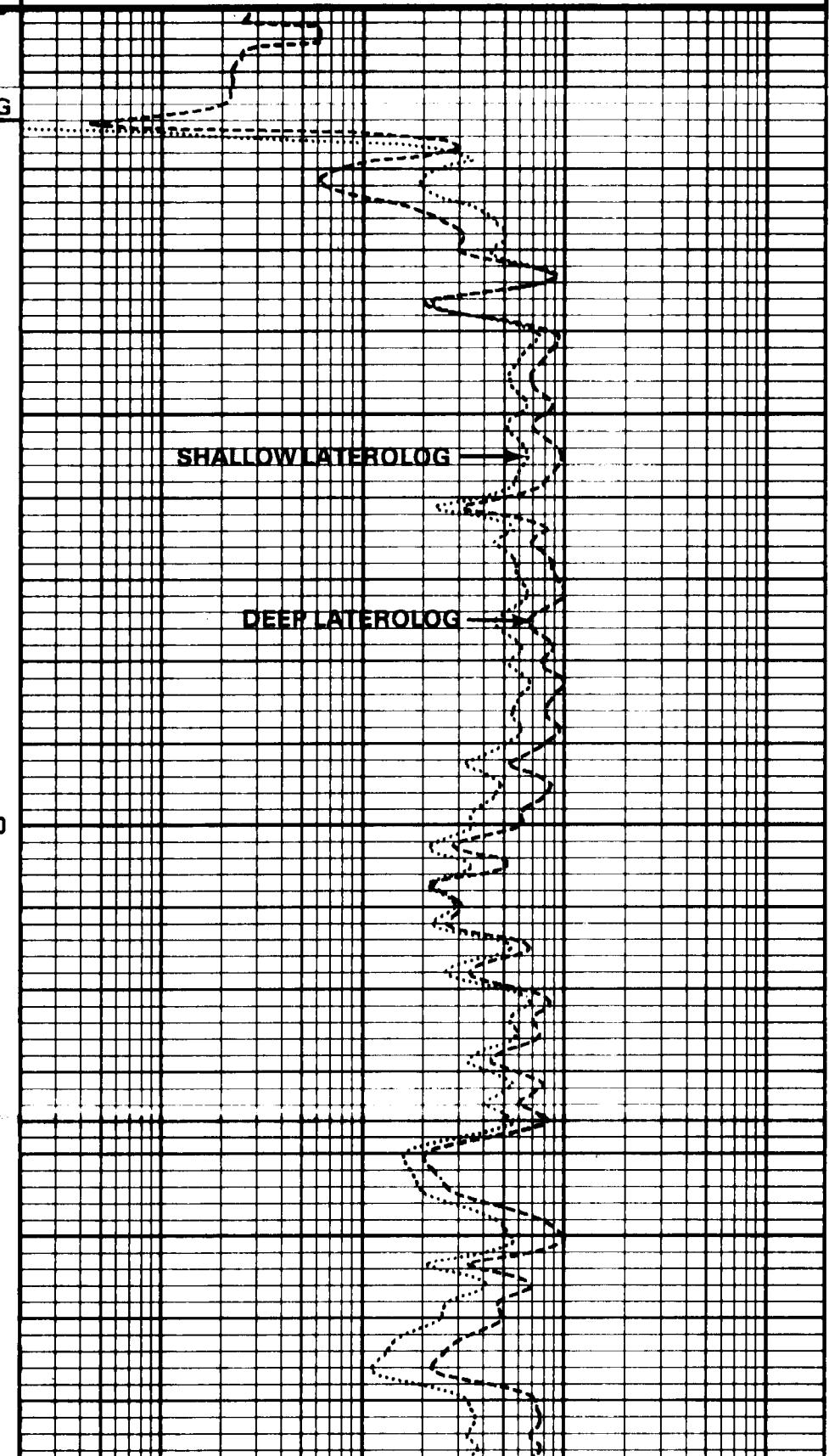


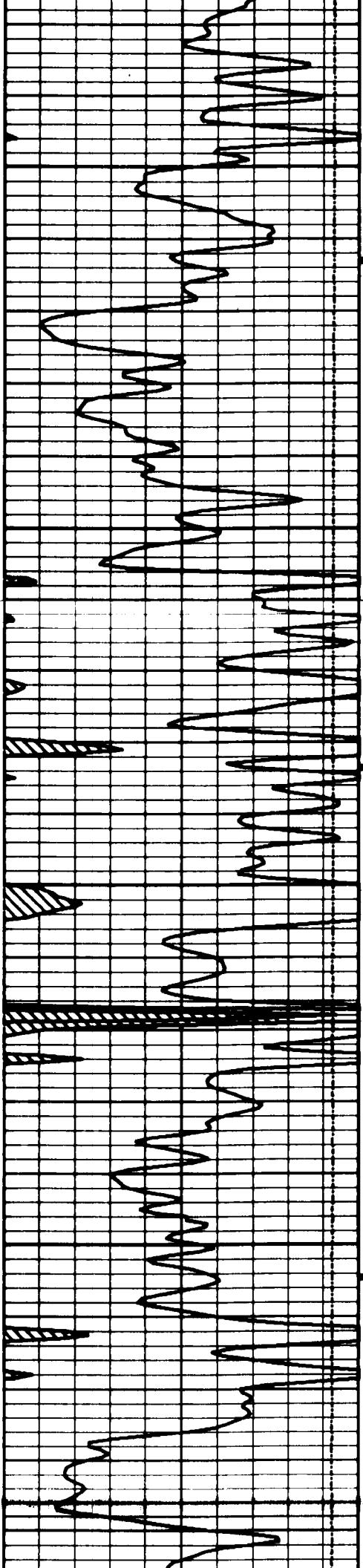
00500

CASING

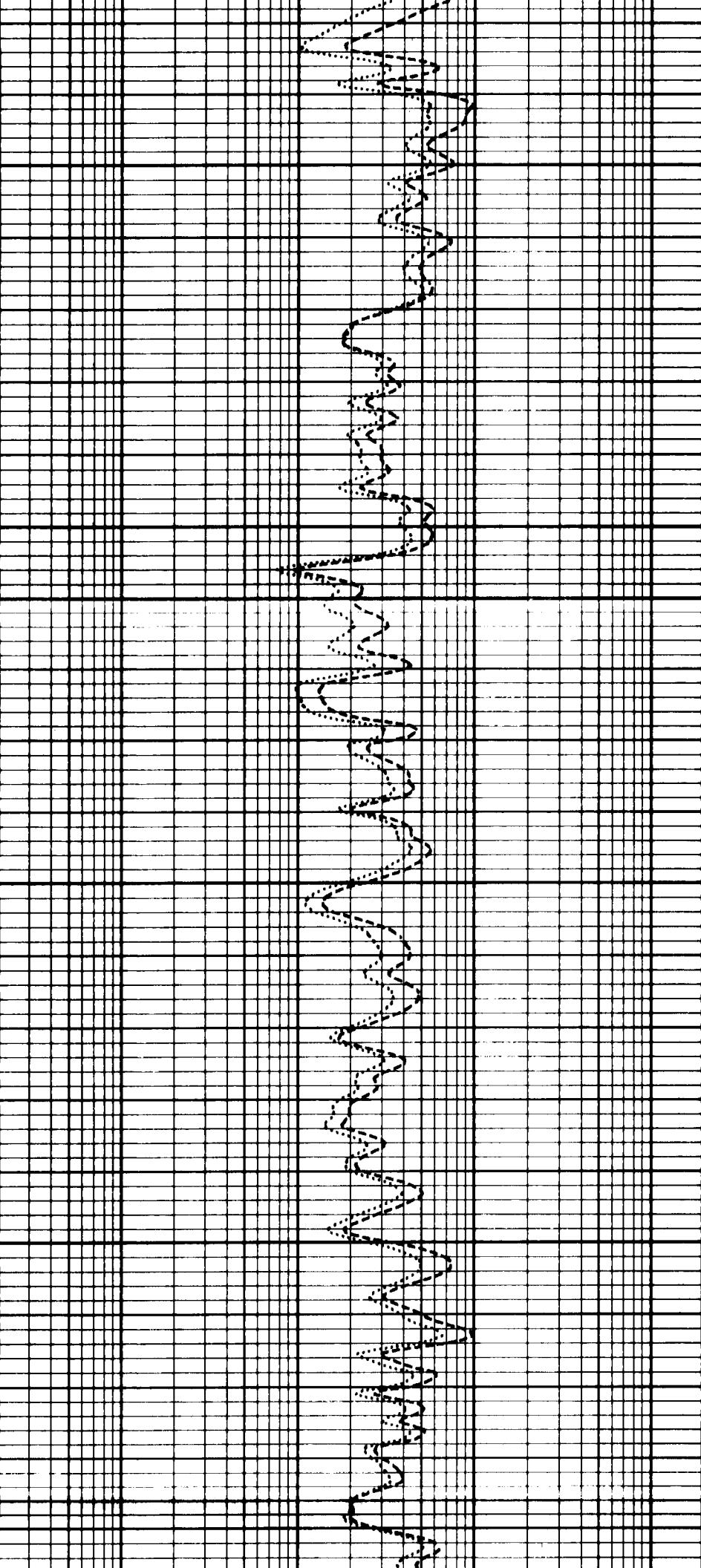
SHALLOW LATEROLOG

DEEP LATEROLOG

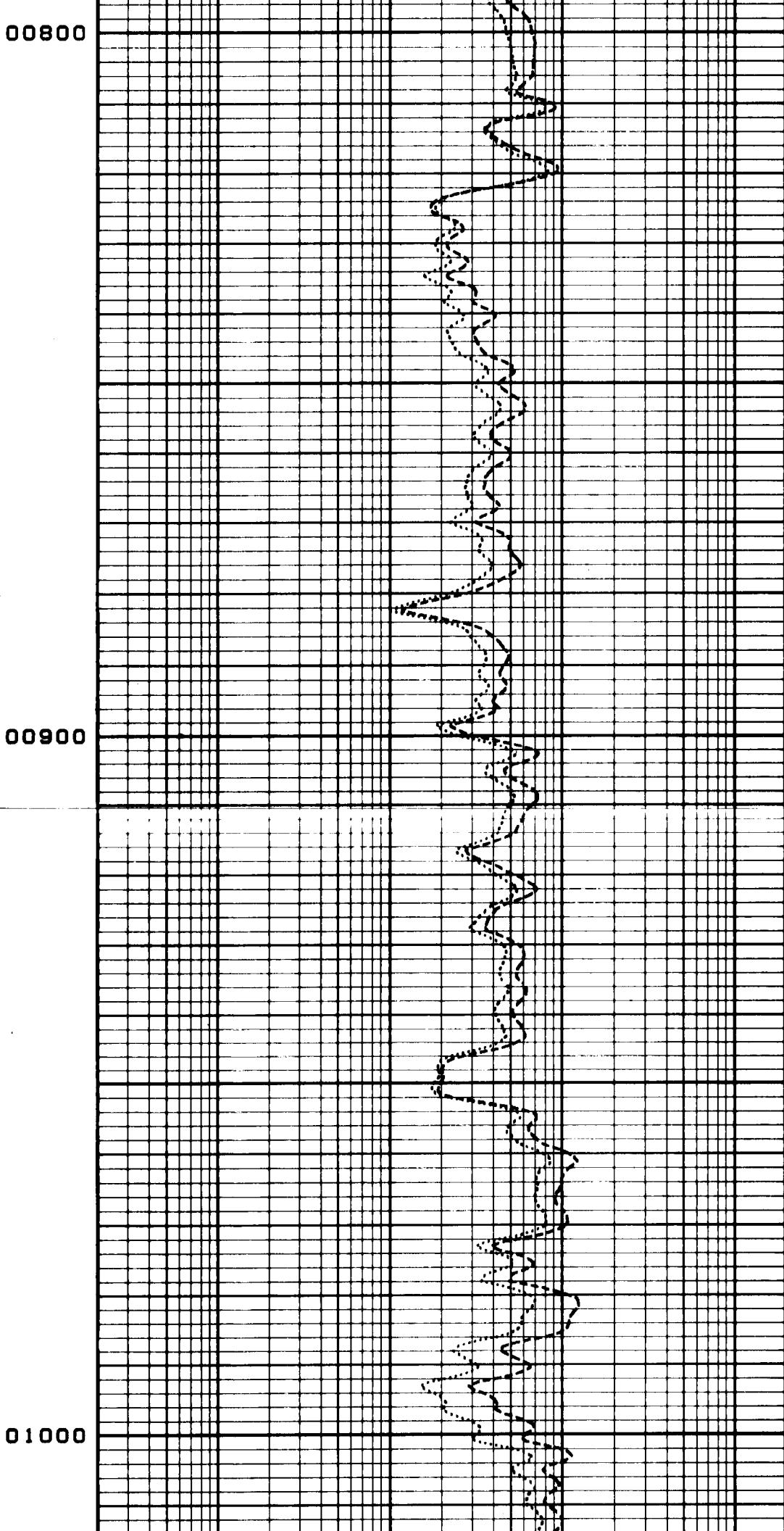
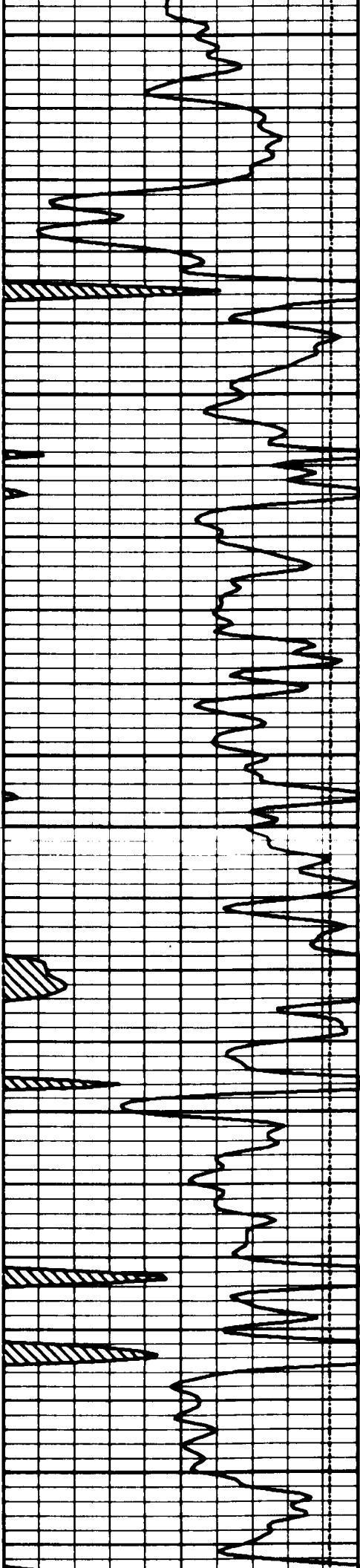


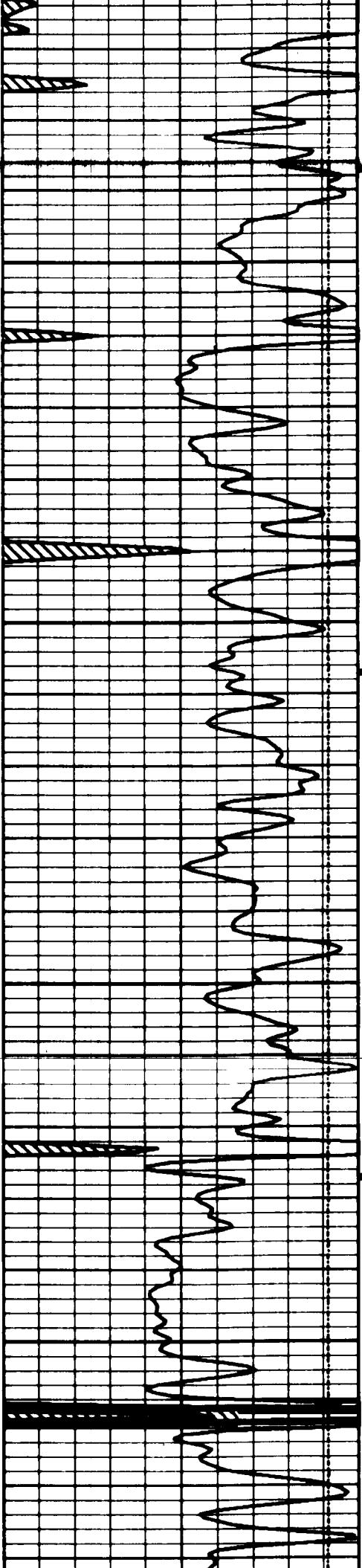


00600

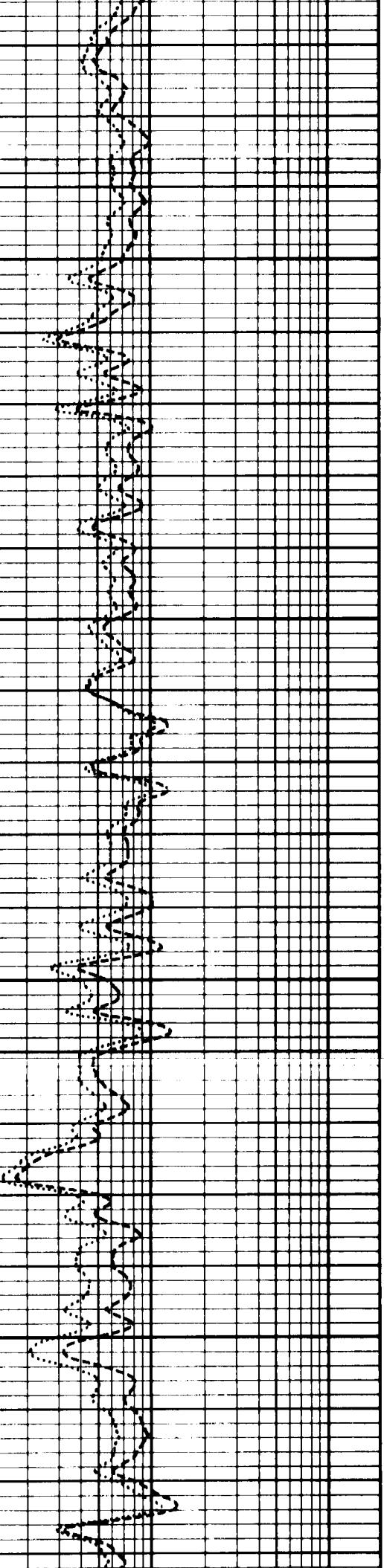


00700

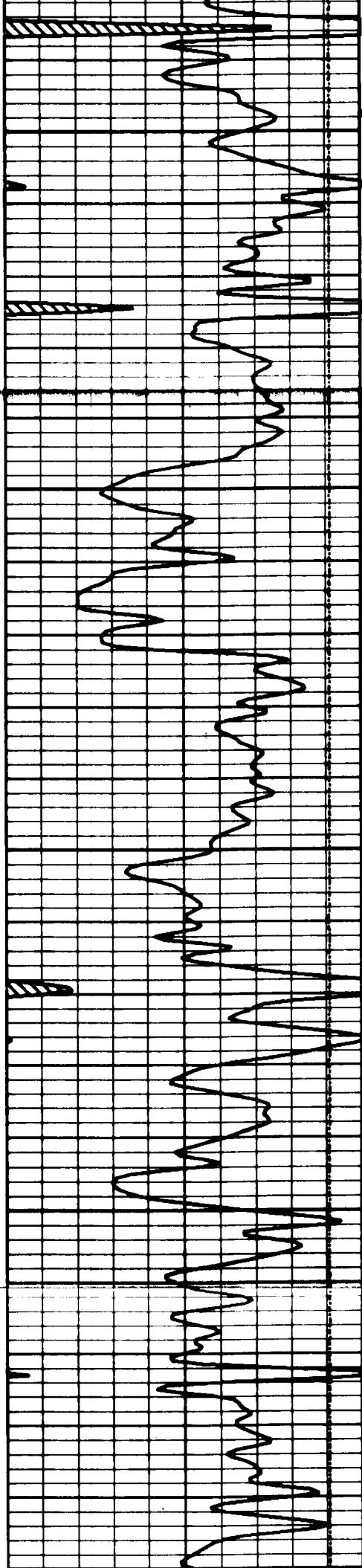




01100

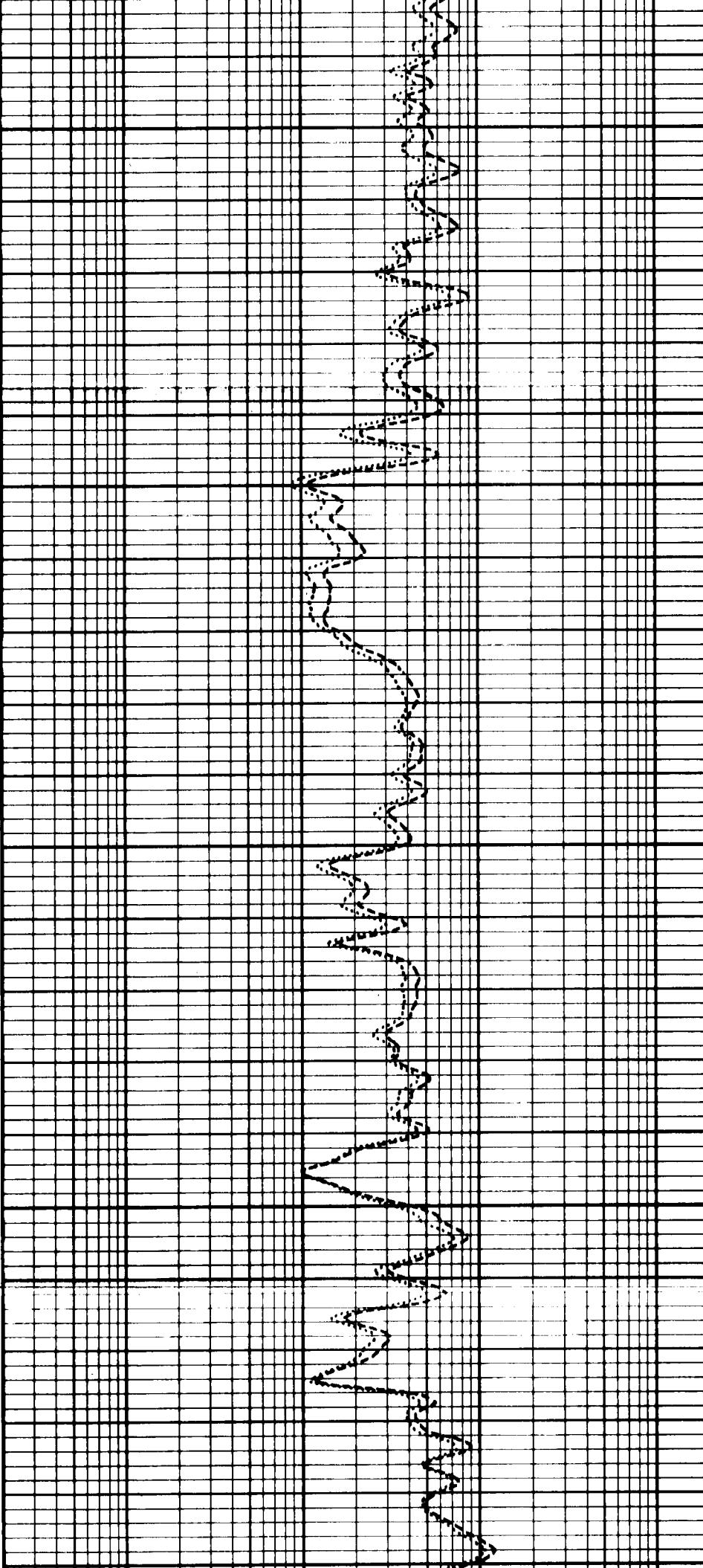


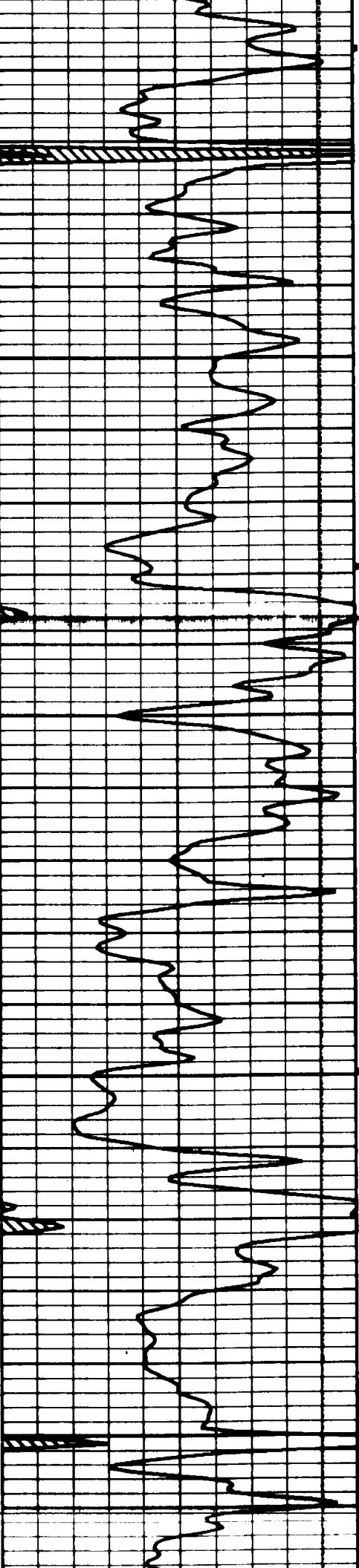
01200



01300

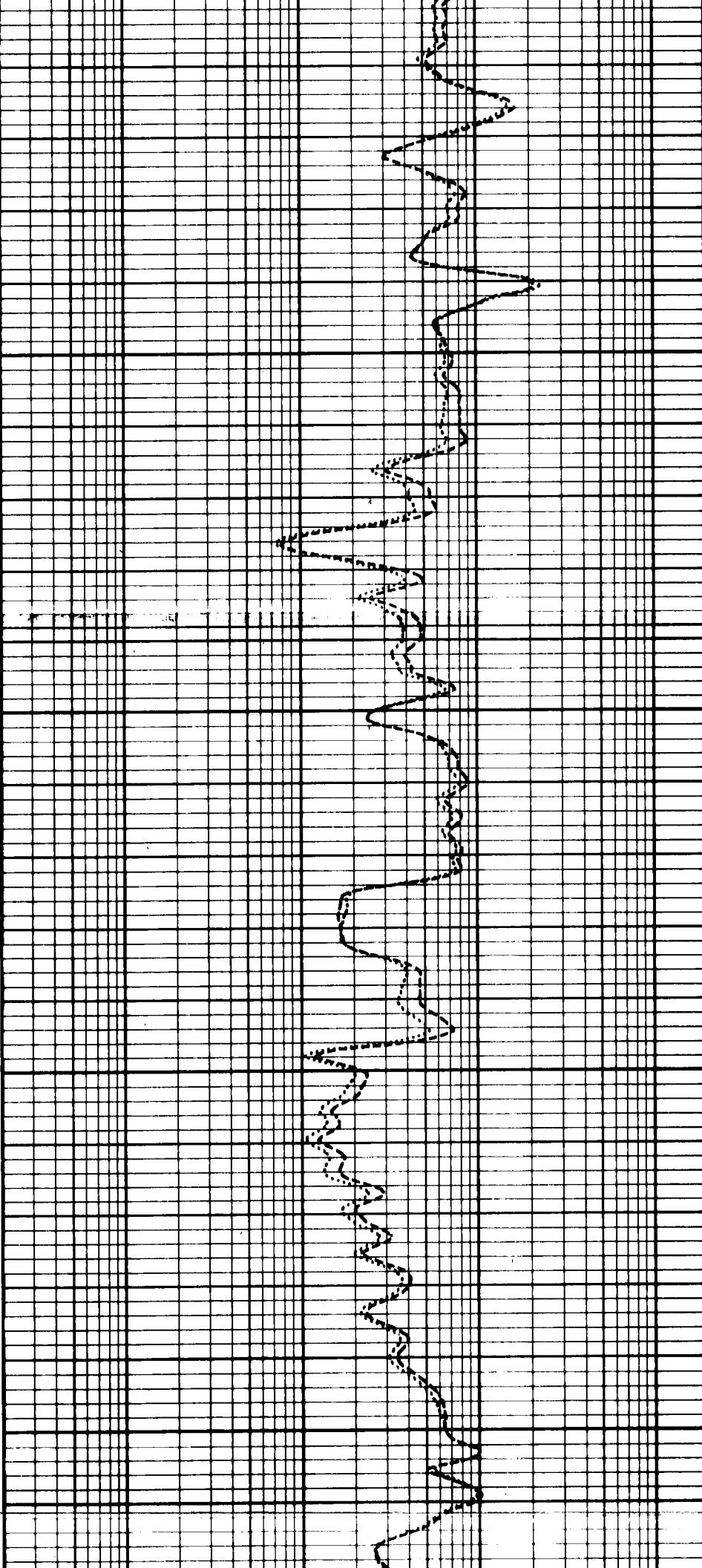
01400

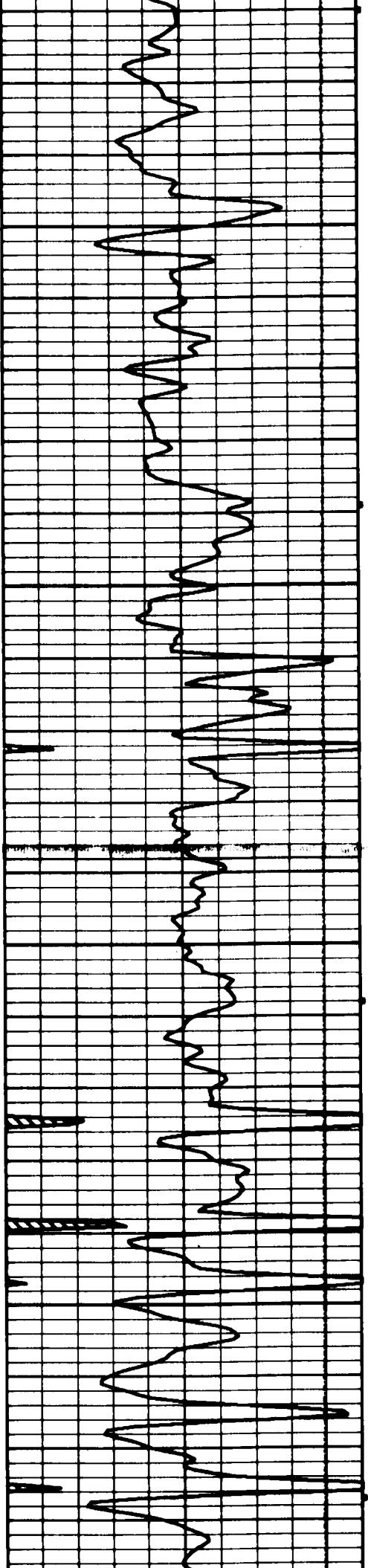




01500

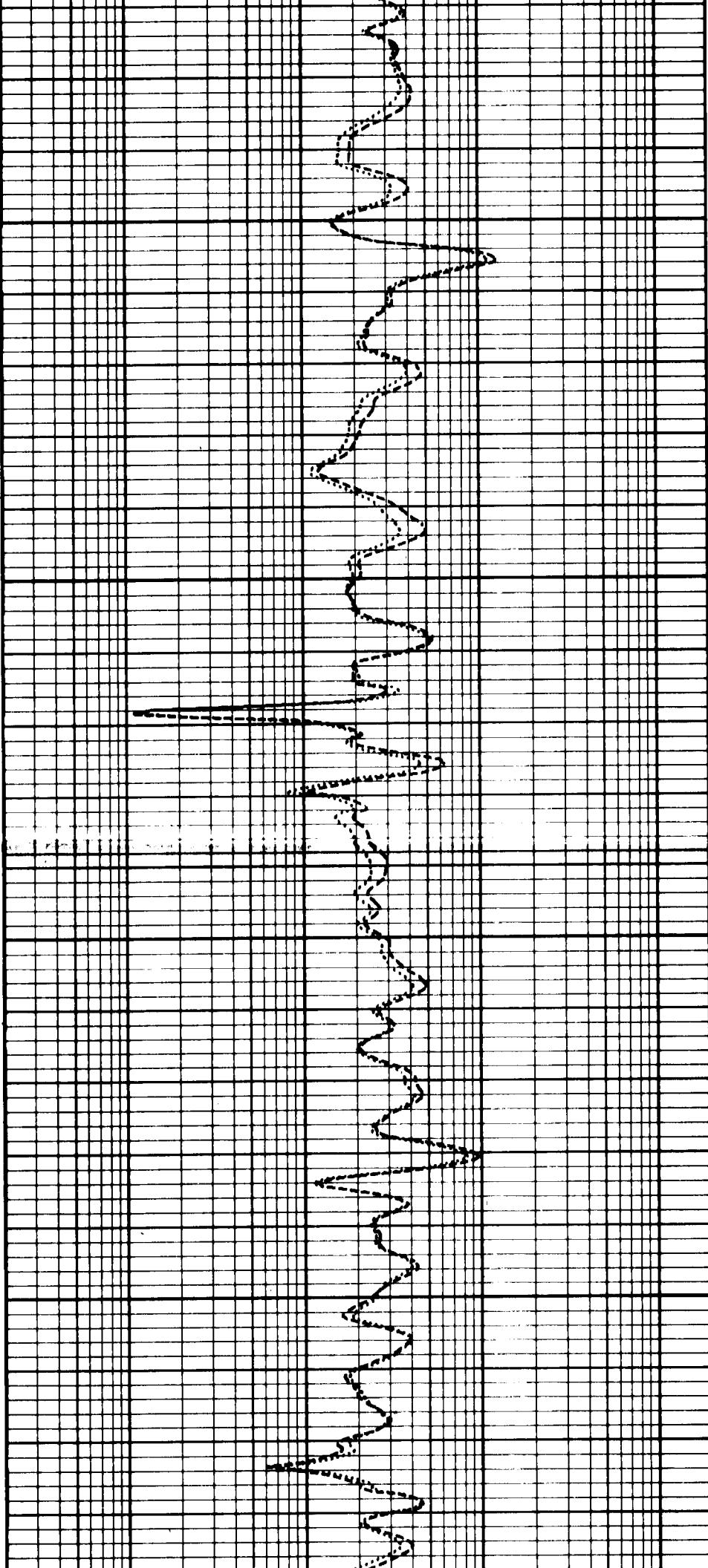
01600

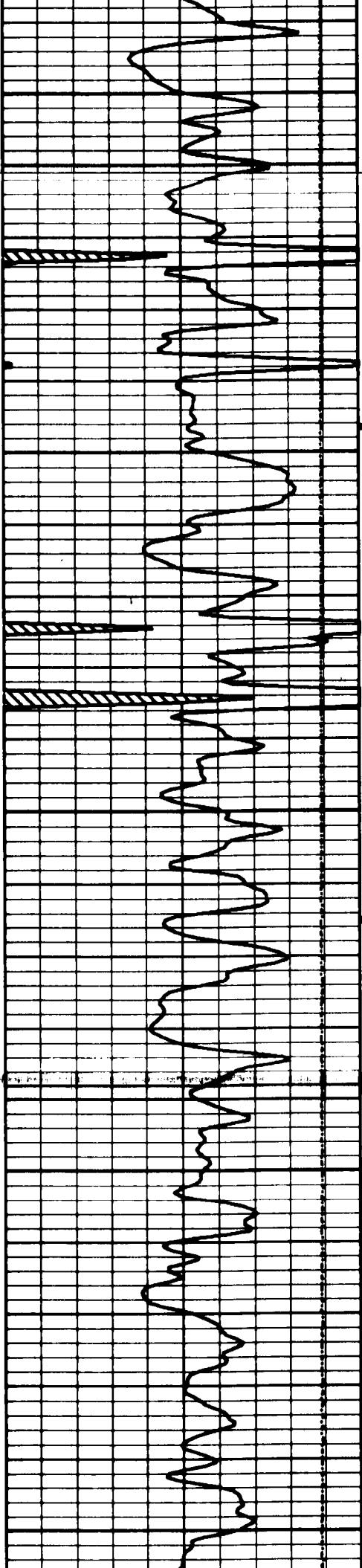




01700

01800

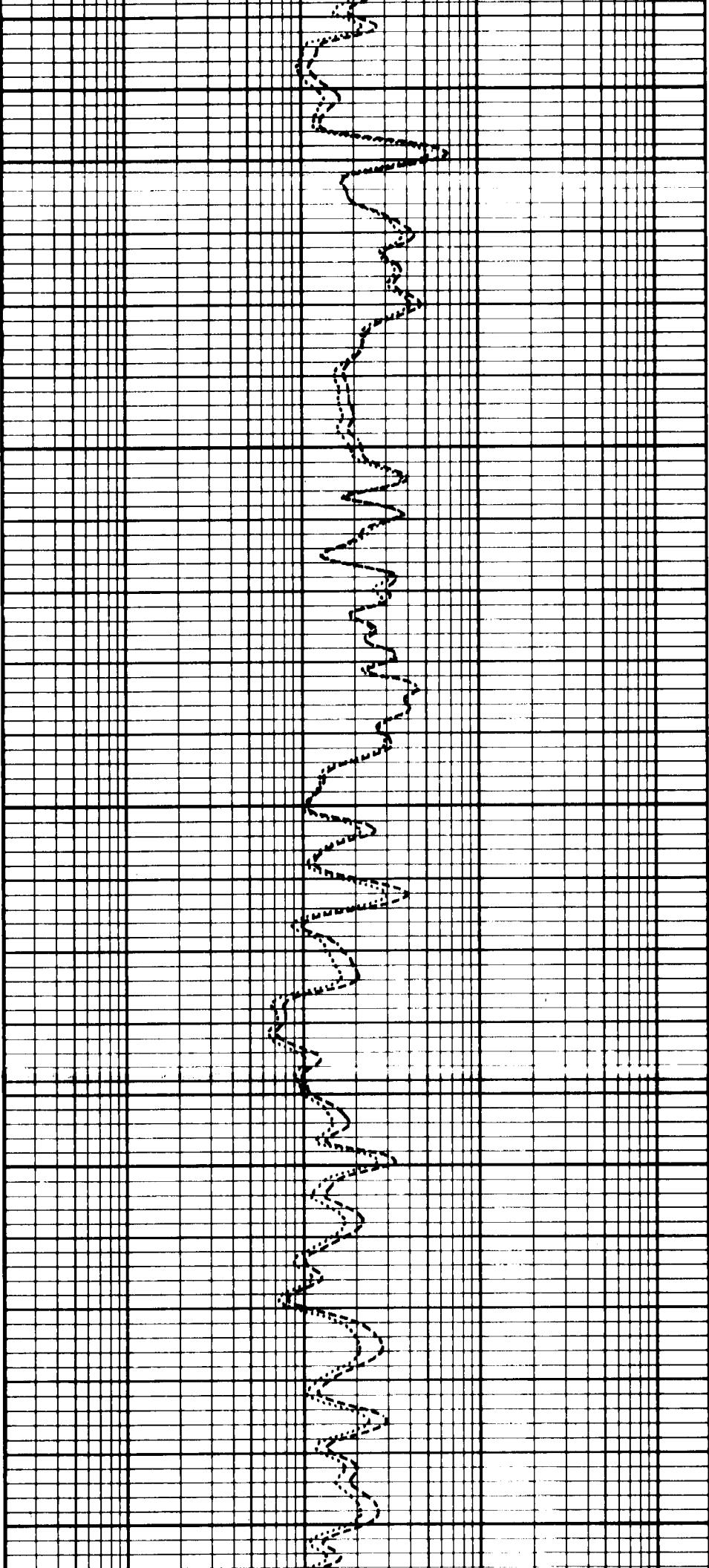


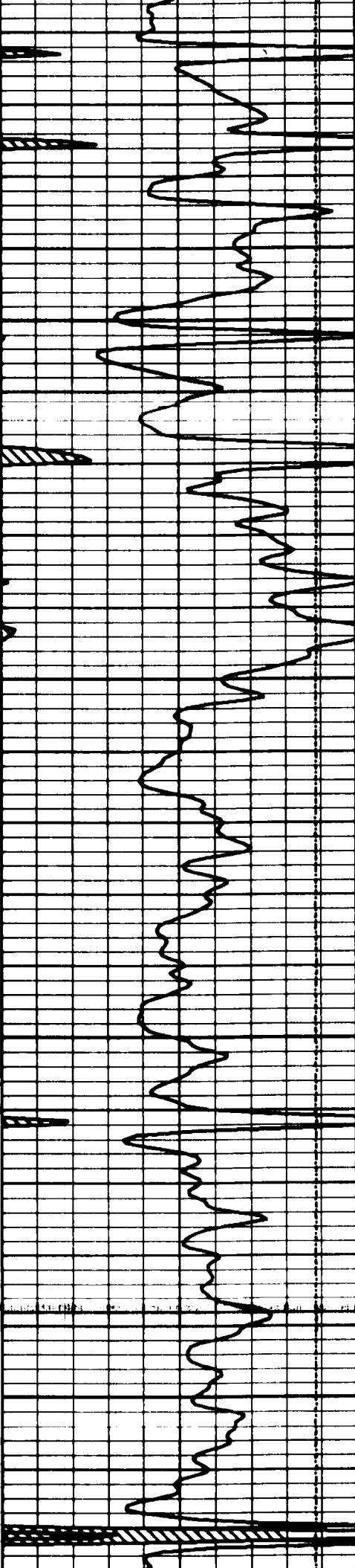


01900

02000

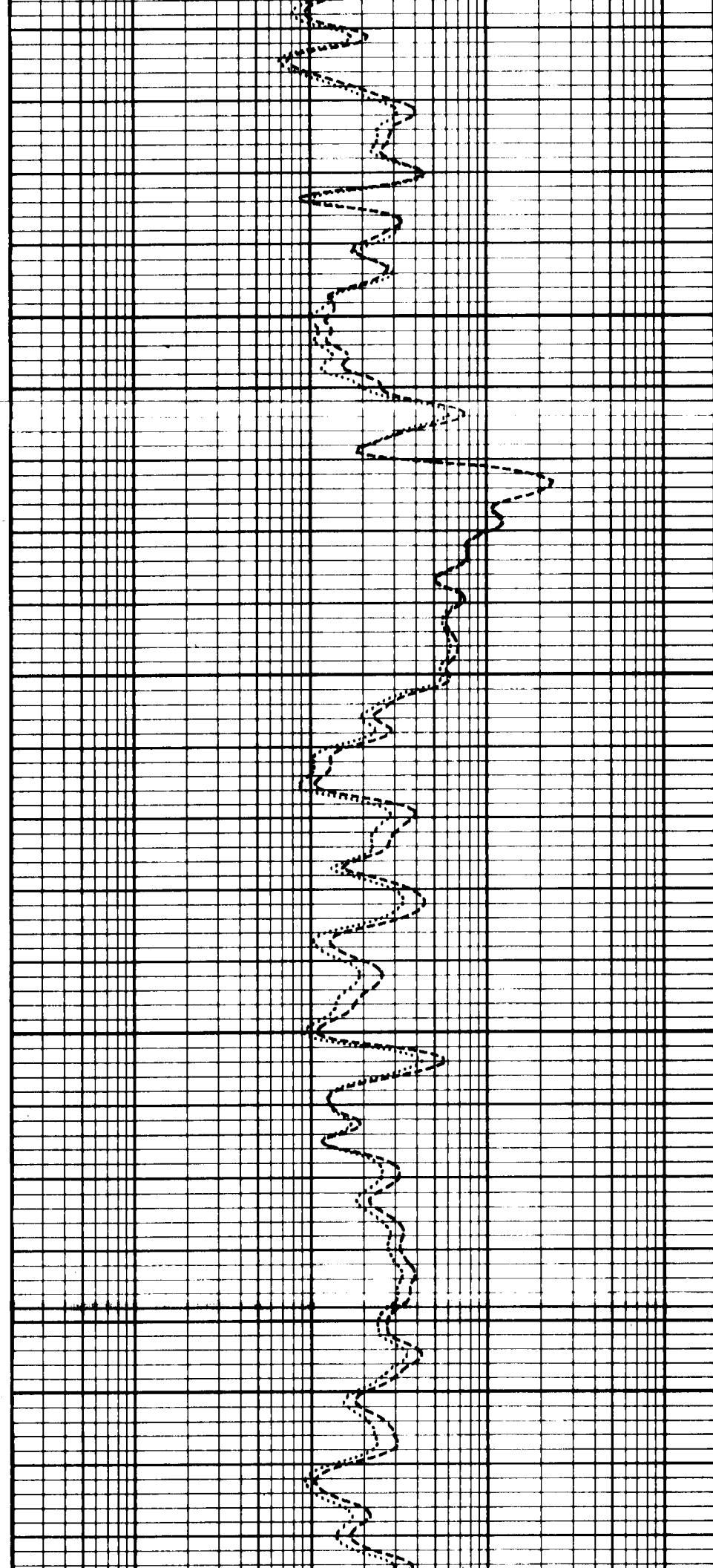
02100

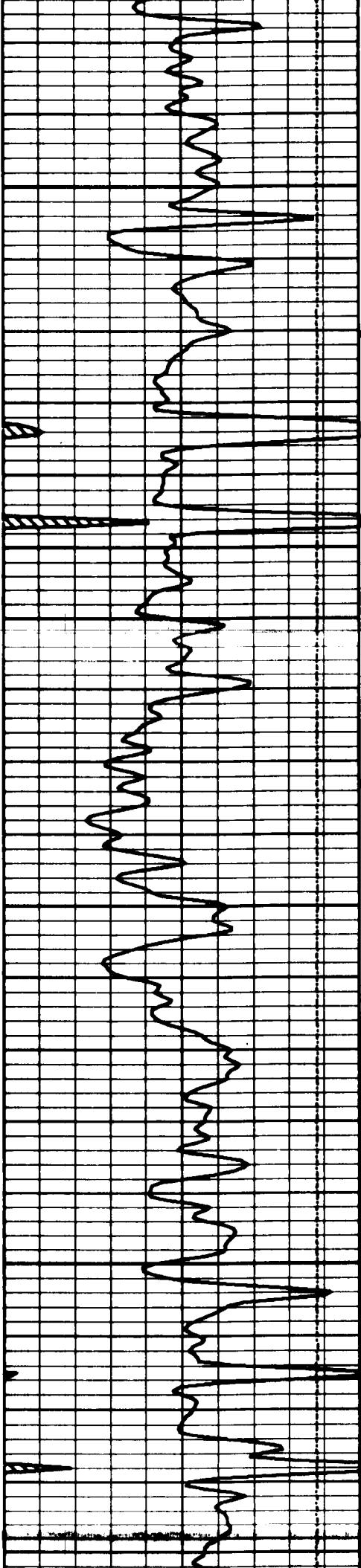




02200

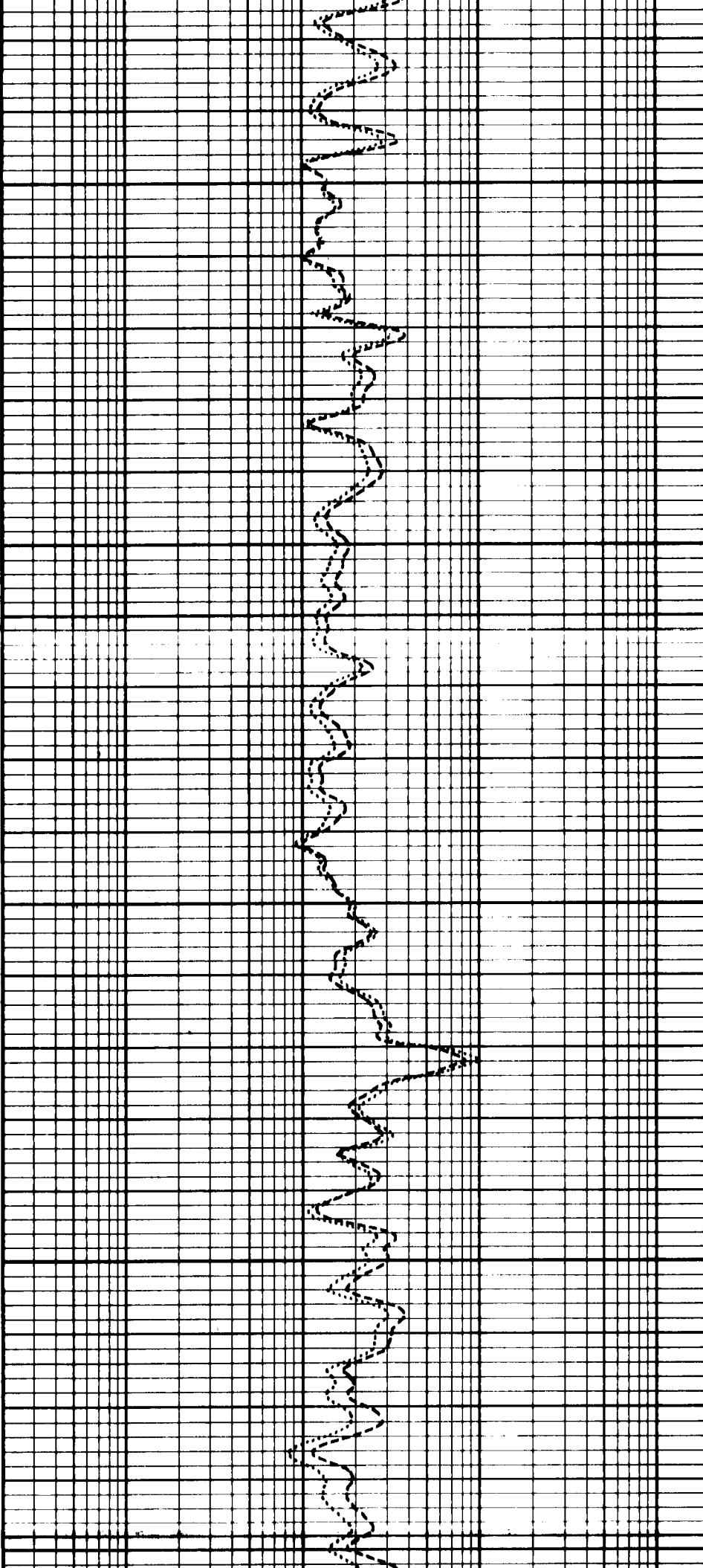
02300

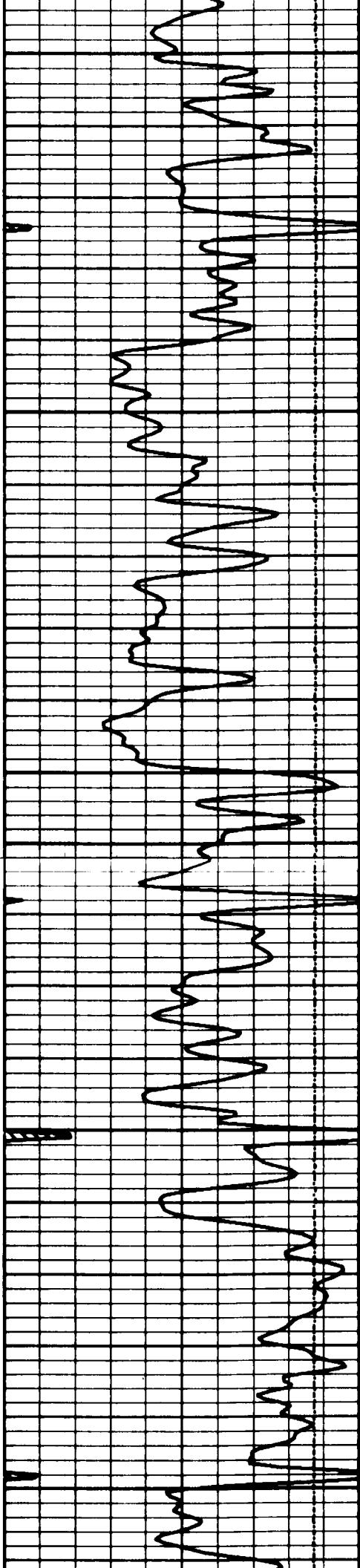




02400

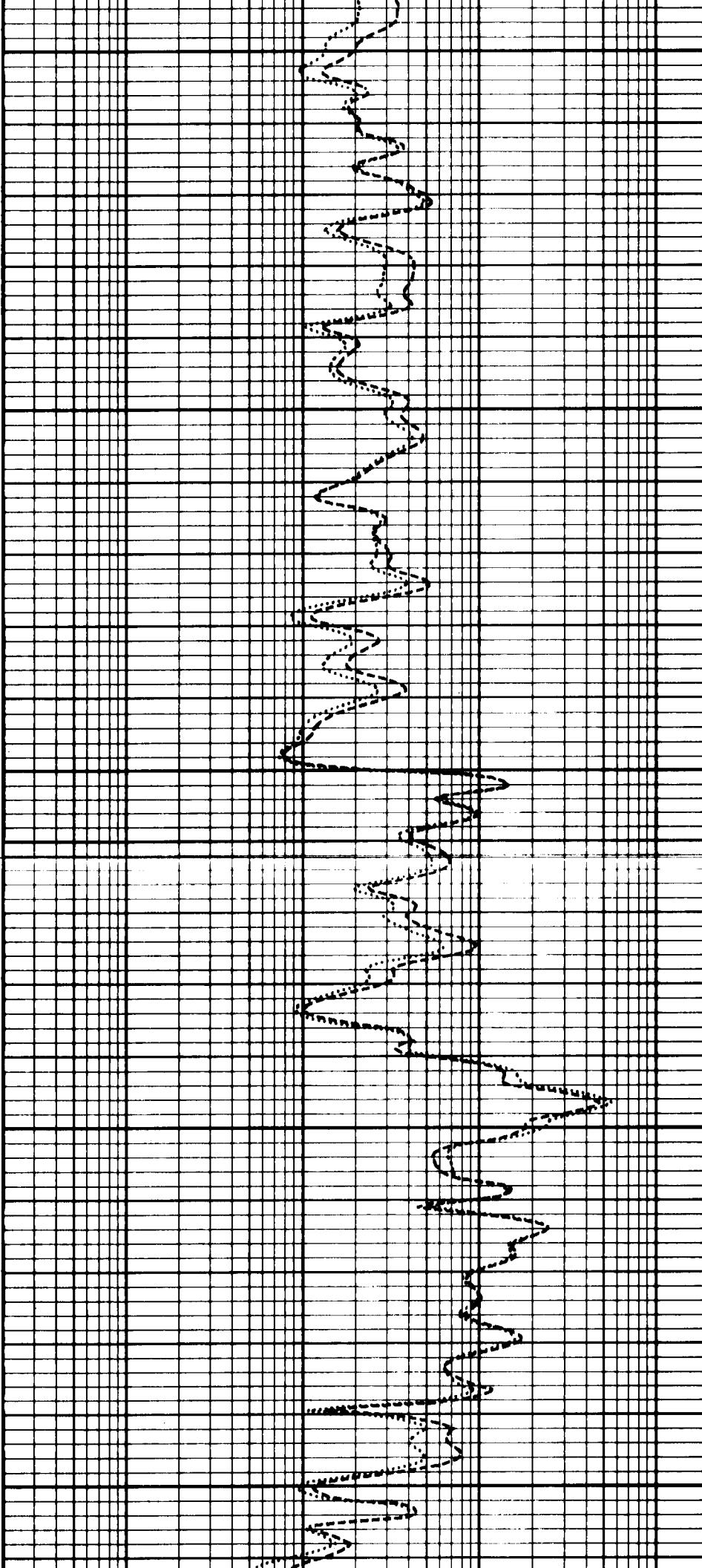
02500

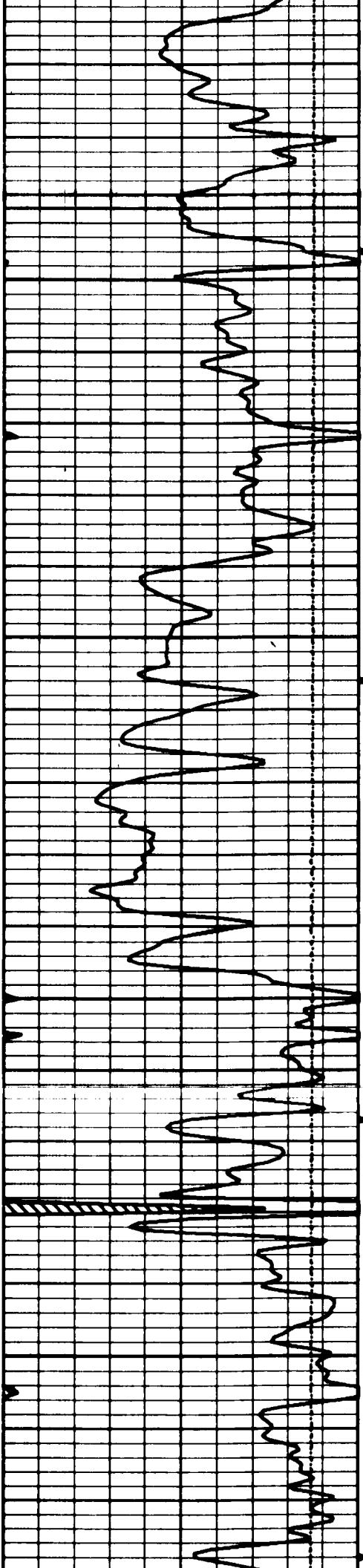




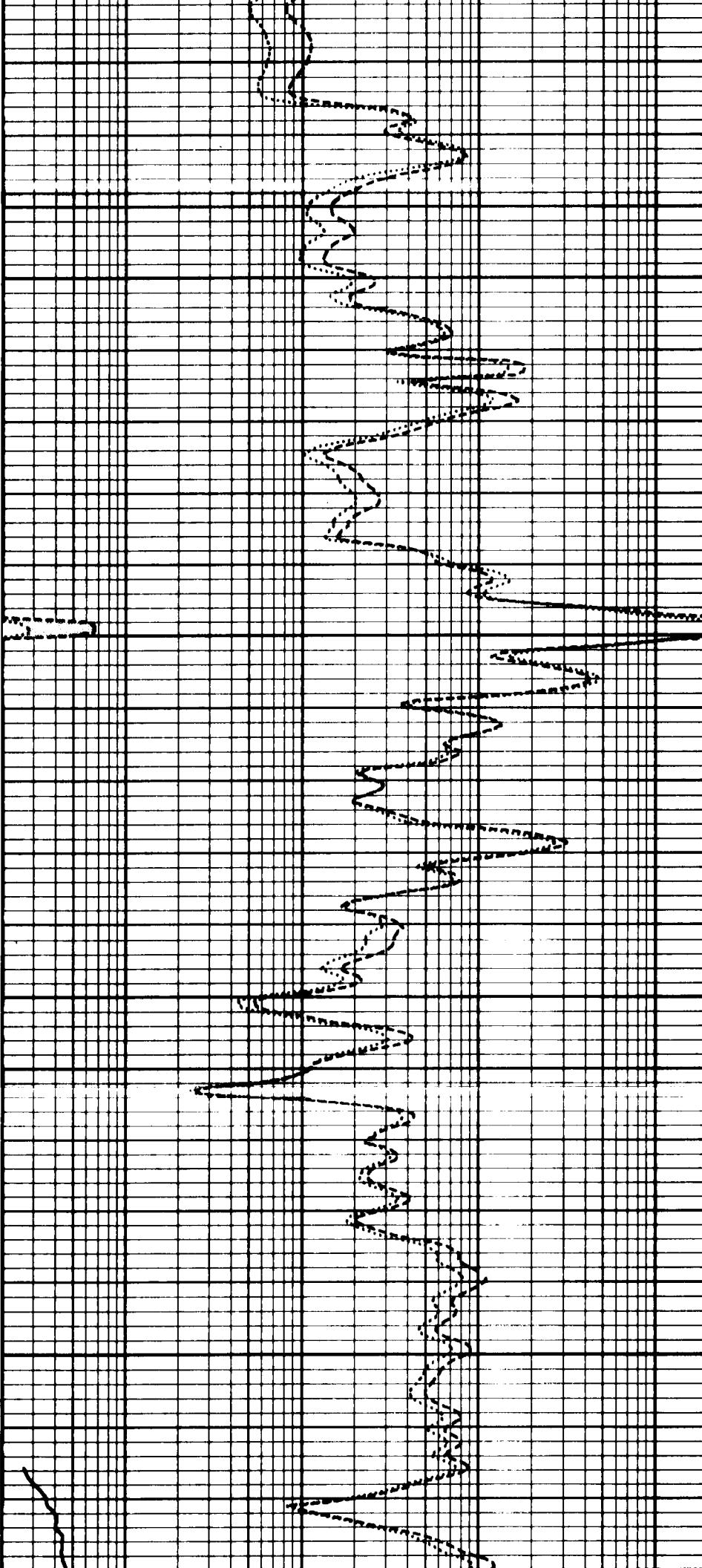
02600

02700

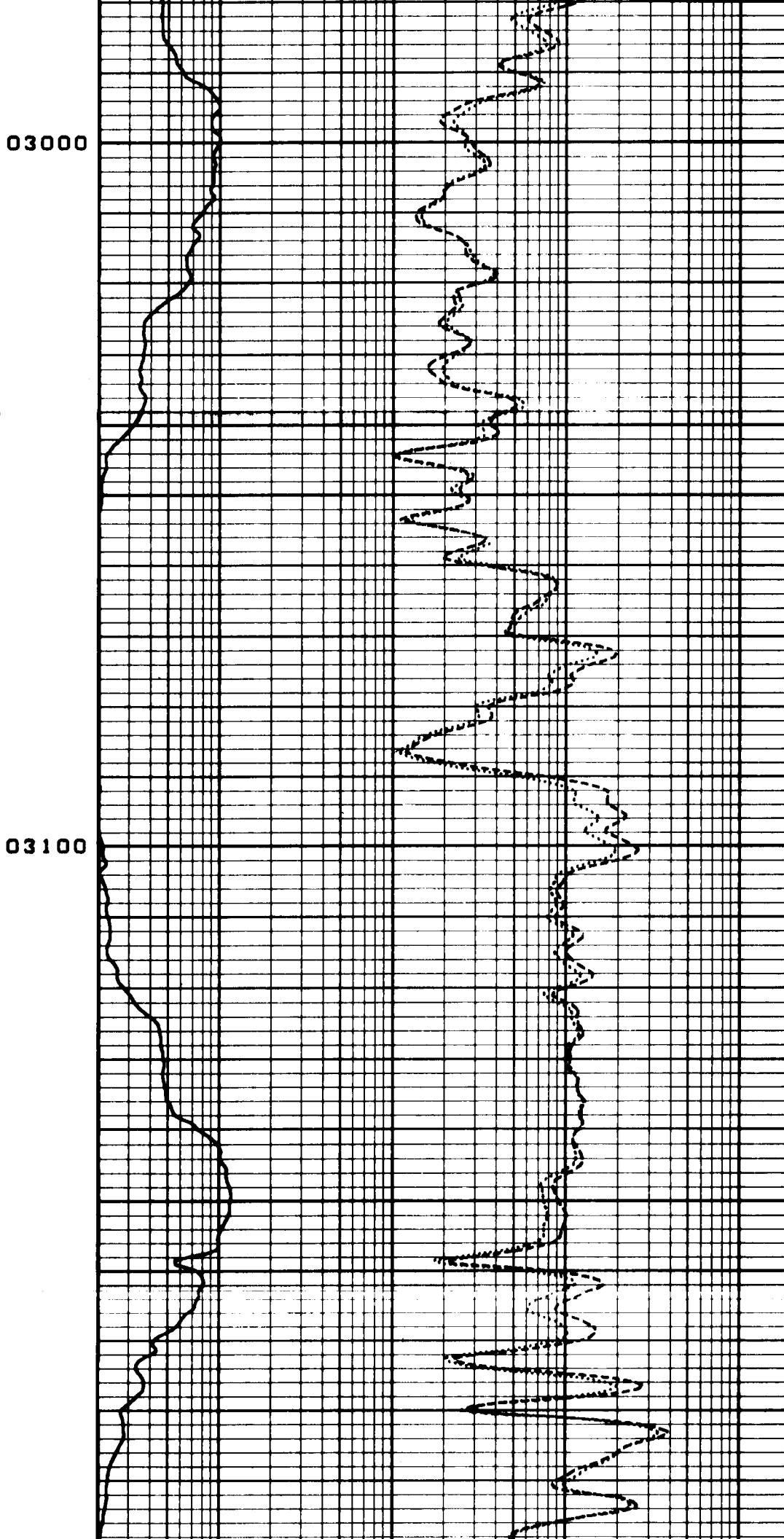
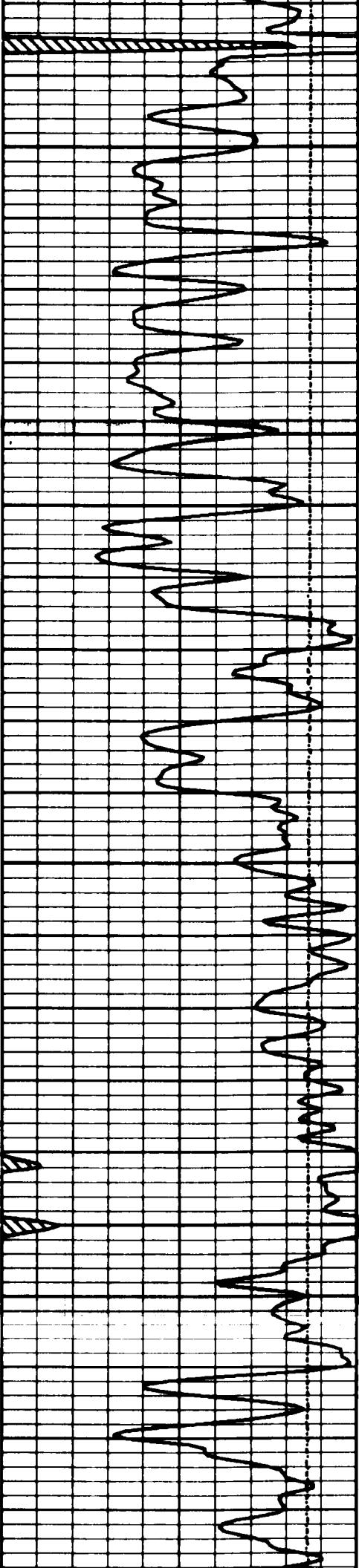


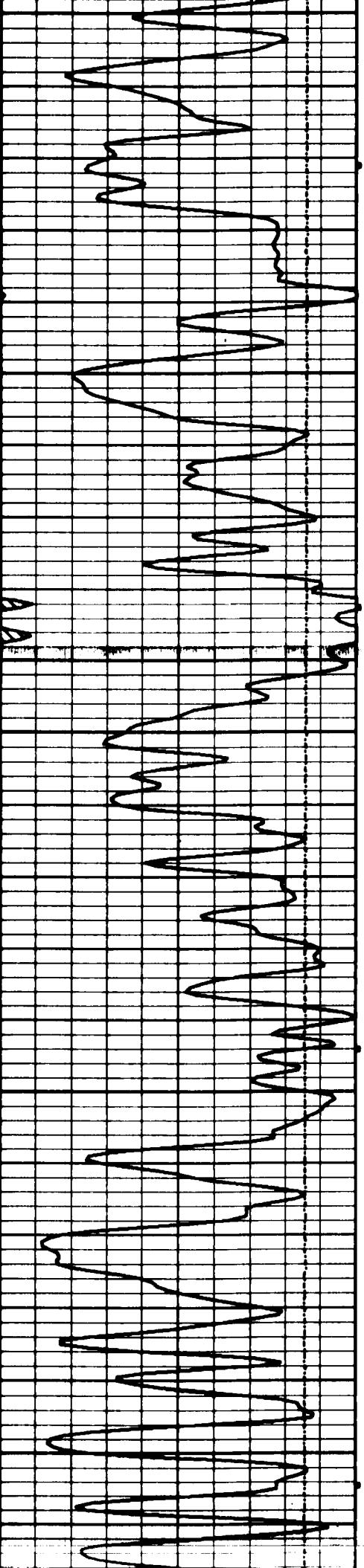


02800

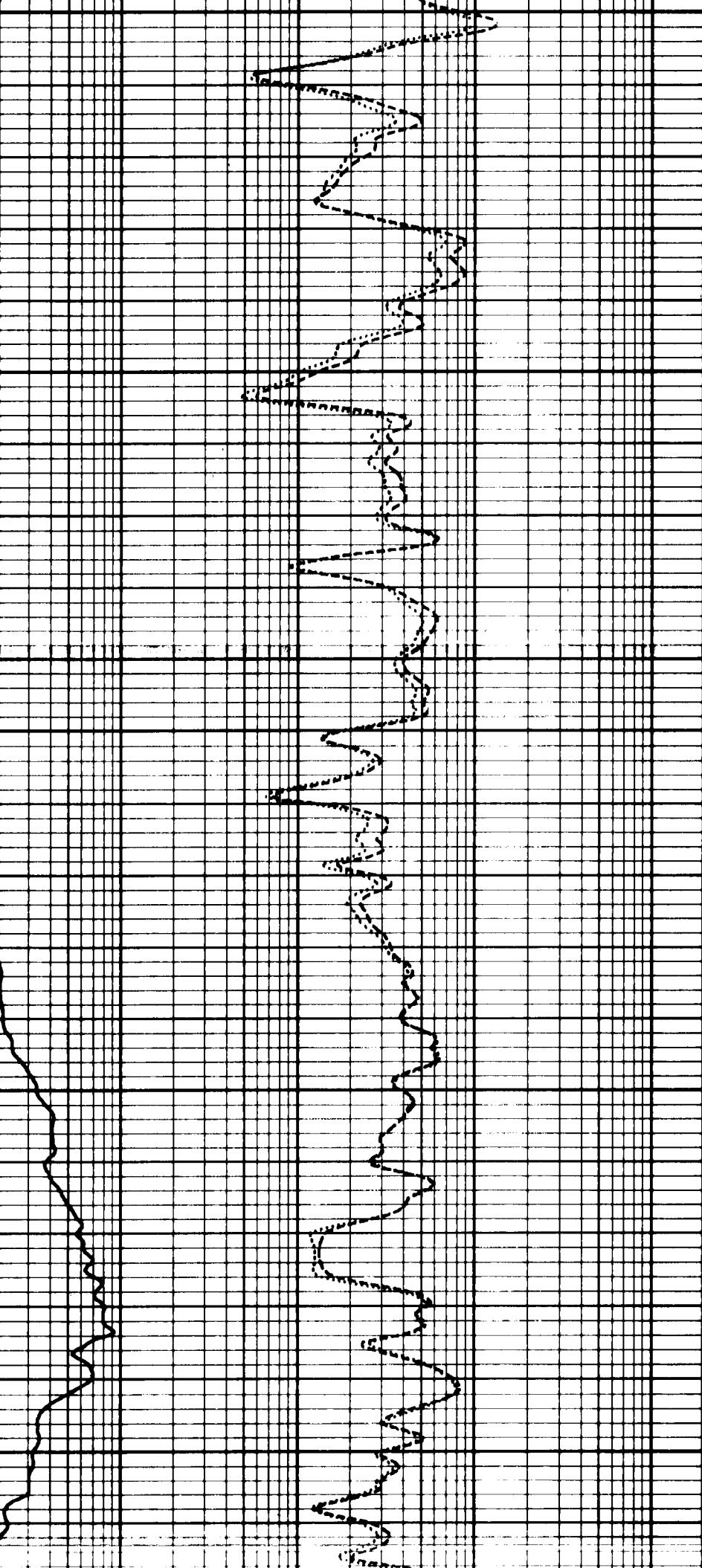


02900



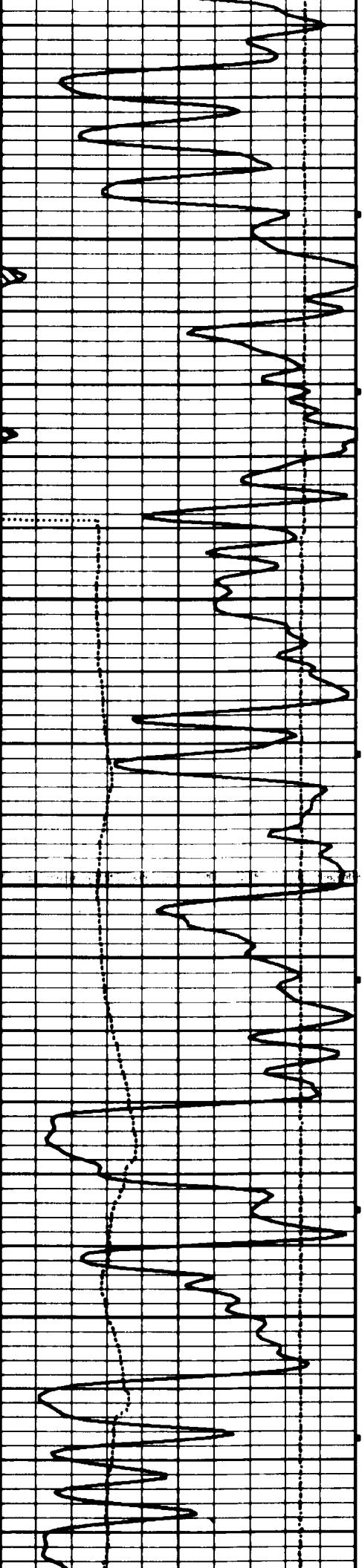


03200



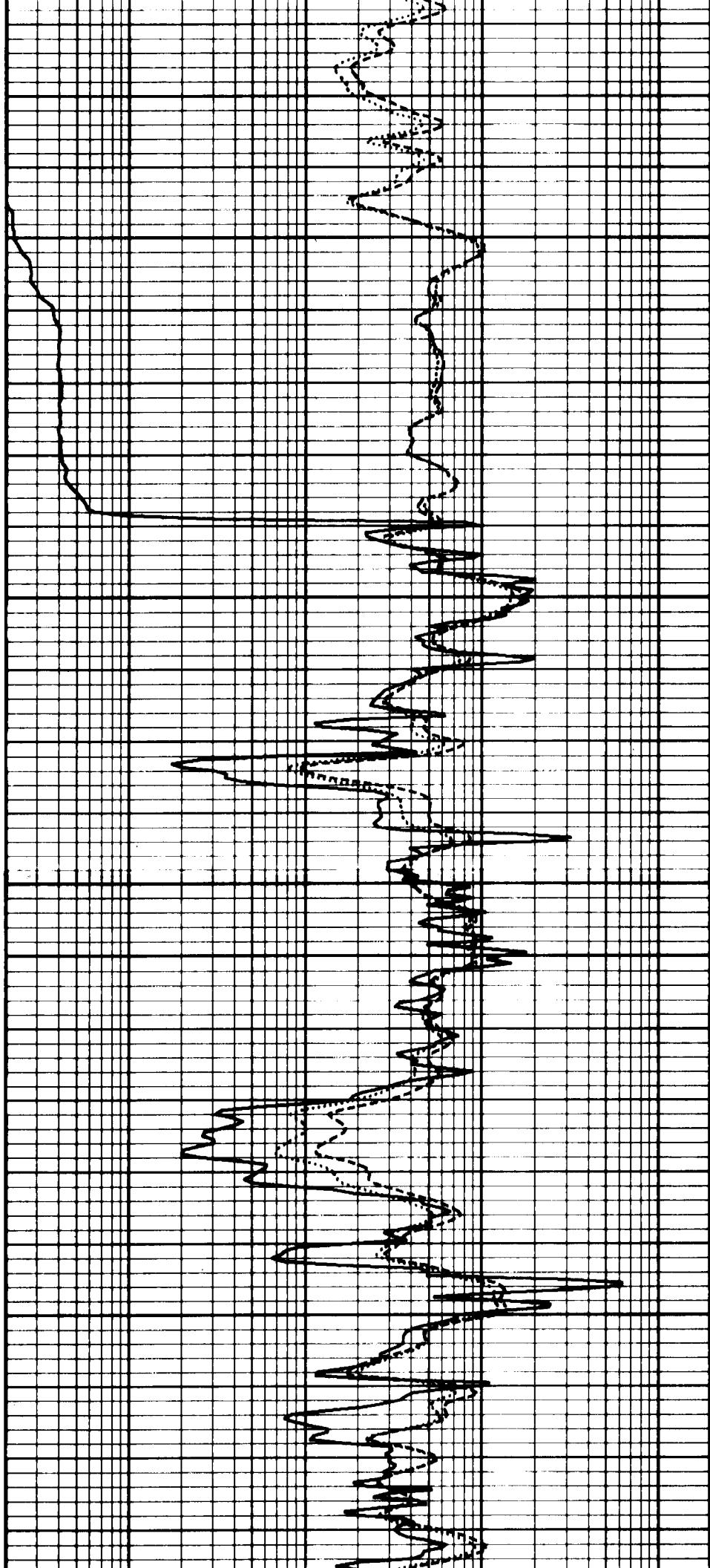
03300

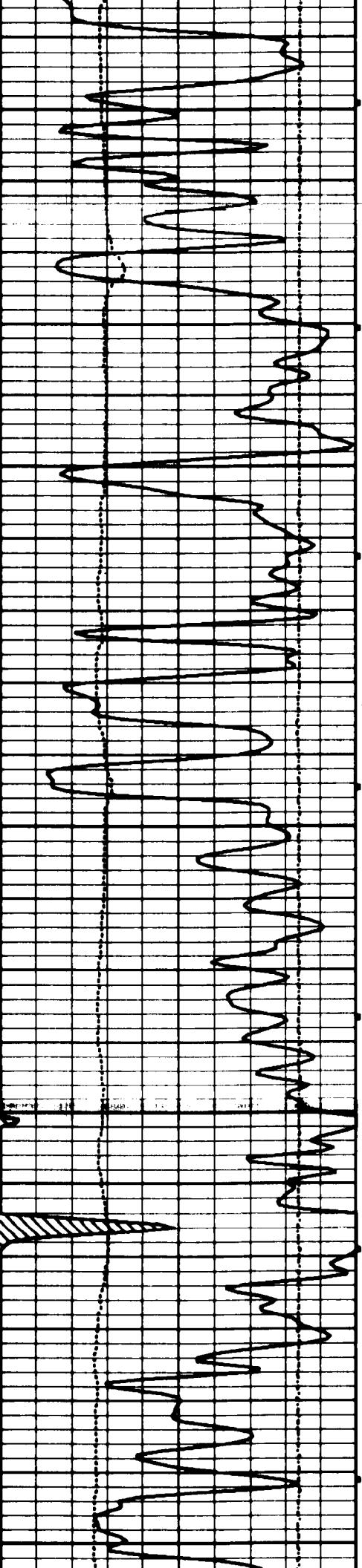
03400



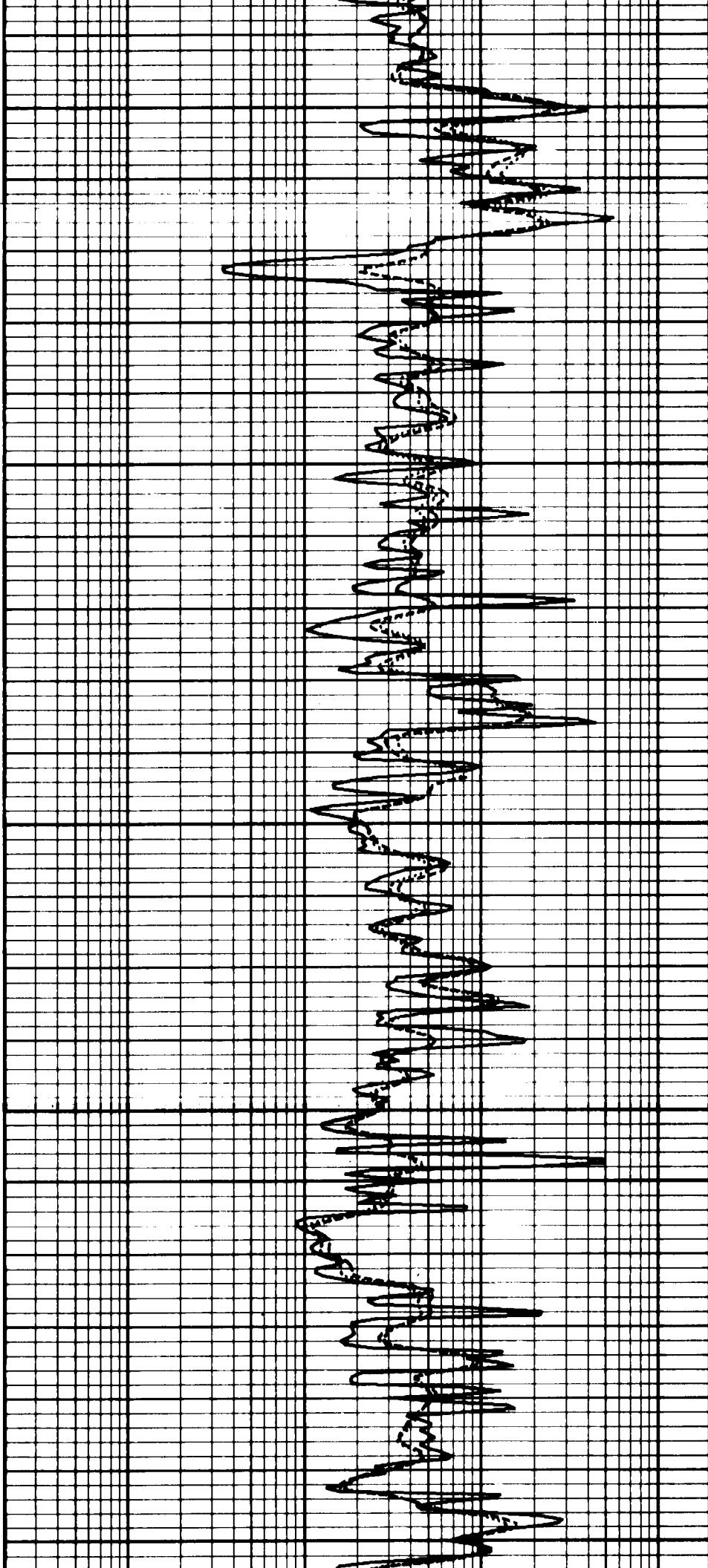
03500

03600

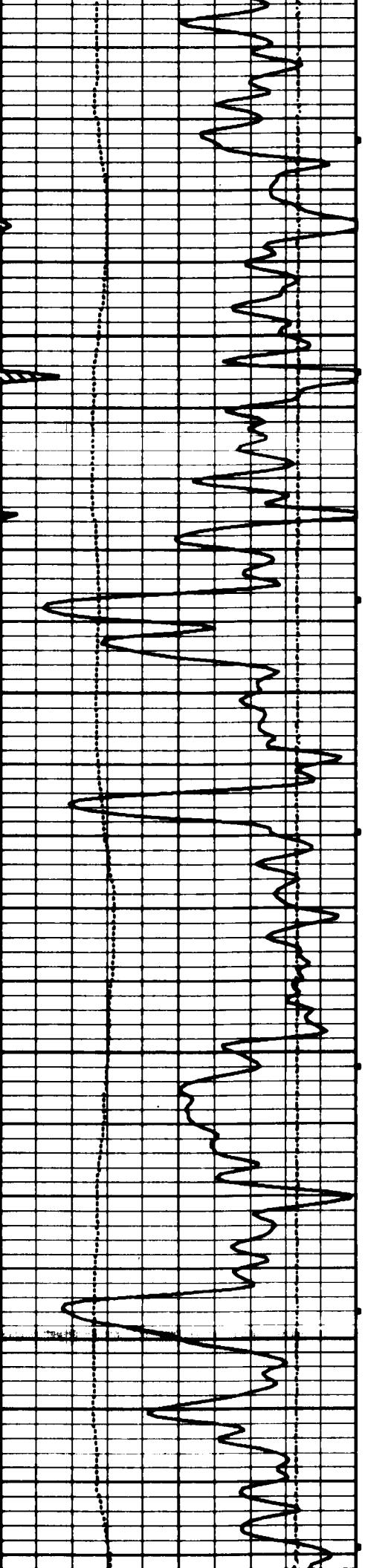




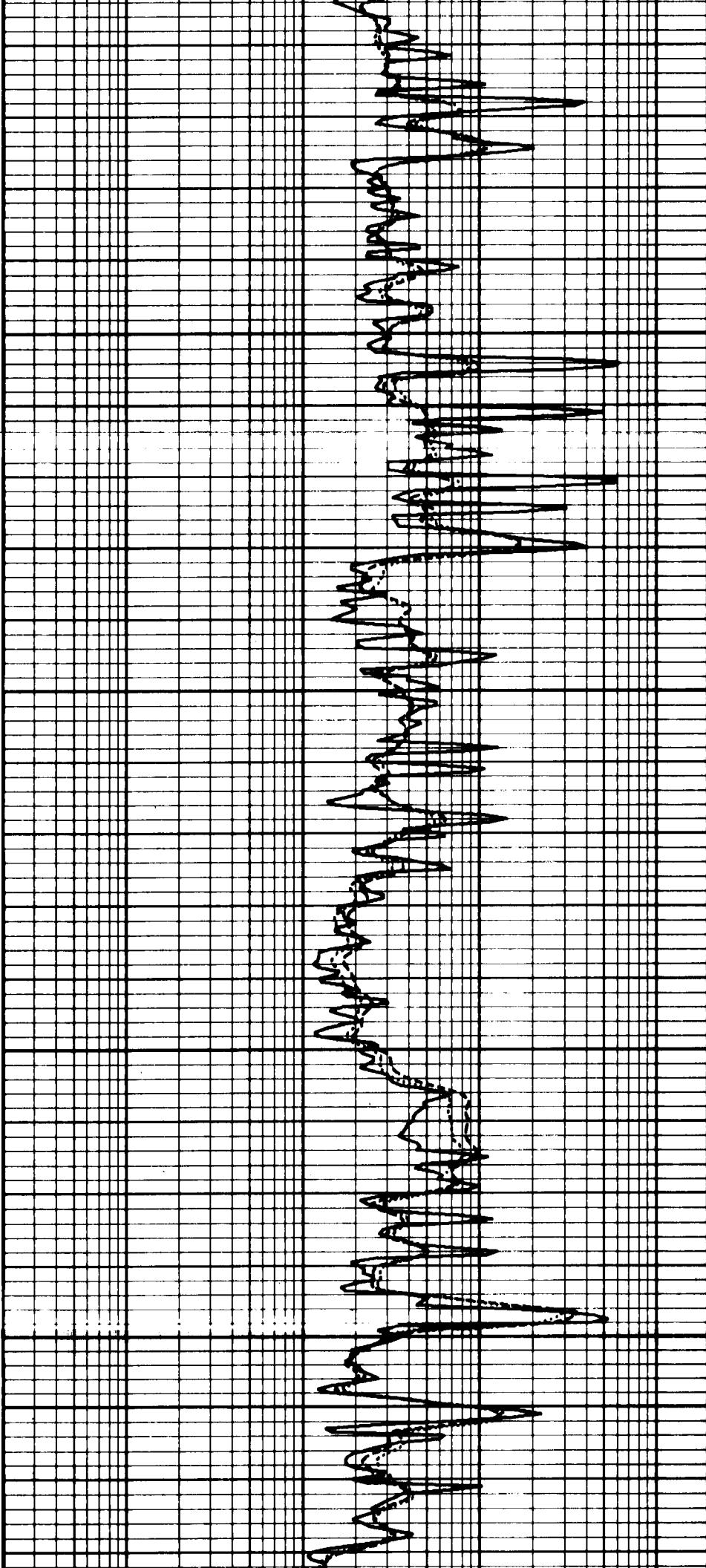
03700



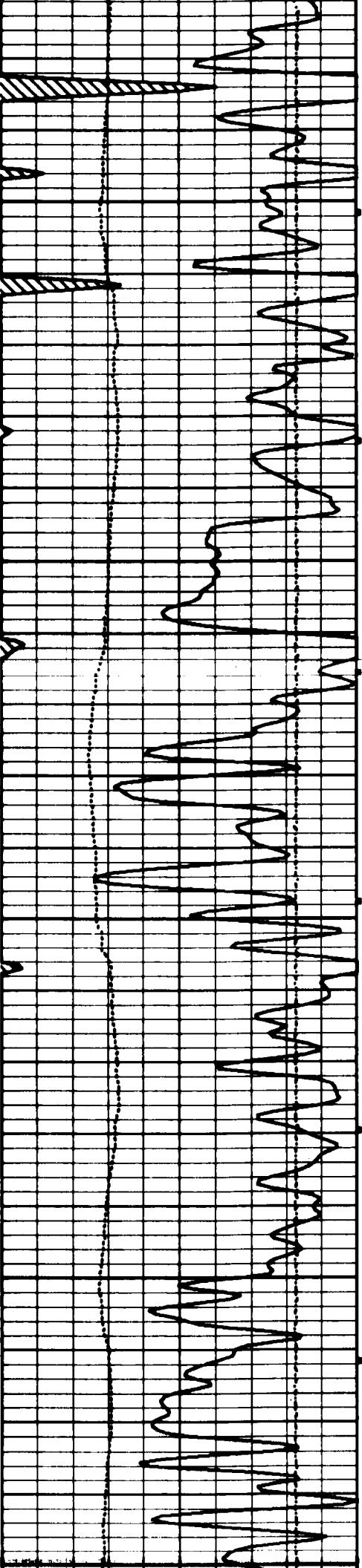
03800



03900



04000



04100

a

b

c

d

e

f

g

h

i

j

k

l

m

n

o

p

q

r

s

t

u

v

w

x

y

z

aa

bb

cc

dd

ee

ff

gg

hh

ii

jj

kk

ll

mm

nn

oo

pp

qq

rr

ss

tt

uu

vv

ww

xx

yy

zz

aa

bb

cc

dd

ee

ff

gg

hh

ii

jj

kk

ll

mm

nn

oo

pp

qq

rr

ss

tt

uu

vv

ww

xx

yy

zz

aa

bb

cc

dd

ee

ff

gg

hh

ii

jj

kk

ll

mm

nn

oo

pp

qq

rr

ss

tt

uu

vv

ww

xx

yy

zz

aa

bb

cc

dd

ee

ff

gg

hh

ii

jj

kk

ll

mm

nn

oo

pp

qq

rr

ss

tt

uu

vv

ww

xx

yy

zz

aa

bb

cc

dd

ee

ff

gg

hh

ii

jj

kk

ll

mm

nn

oo

pp

qq

rr

ss

tt

uu

vv

ww

xx

yy

zz

aa

bb

cc

dd

ee

ff

gg

hh

ii

jj

kk

ll

mm

nn

oo

pp

qq

rr

ss

tt

uu

vv

ww

xx

yy

zz

aa

bb

cc

dd

ee

ff

gg

hh

ii

jj

kk

ll

mm

nn

oo

pp

qq

rr

ss

tt

uu

vv

ww

xx

yy

zz

aa

bb

cc

dd

ee

ff

gg

hh

ii

jj

kk

ll

mm

nn

oo

pp

qq

rr

ss

tt

uu

vv

ww

xx

yy

zz

aa

bb

cc

dd

ee

ff

gg

hh

ii

jj

kk

ll

mm

nn

oo

pp

qq

rr

ss

tt

uu

vv

ww

xx

yy

zz

aa

bb

cc

dd

ee

ff

gg

hh

ii

jj

kk

ll

mm

nn

oo

pp

qq

rr

ss

tt

uu

vv

ww

xx

yy

zz

aa

bb

cc

dd

ee

ff

gg

hh

ii

jj

kk

ll

mm

nn

oo

pp

qq

rr

ss

tt

uu

vv

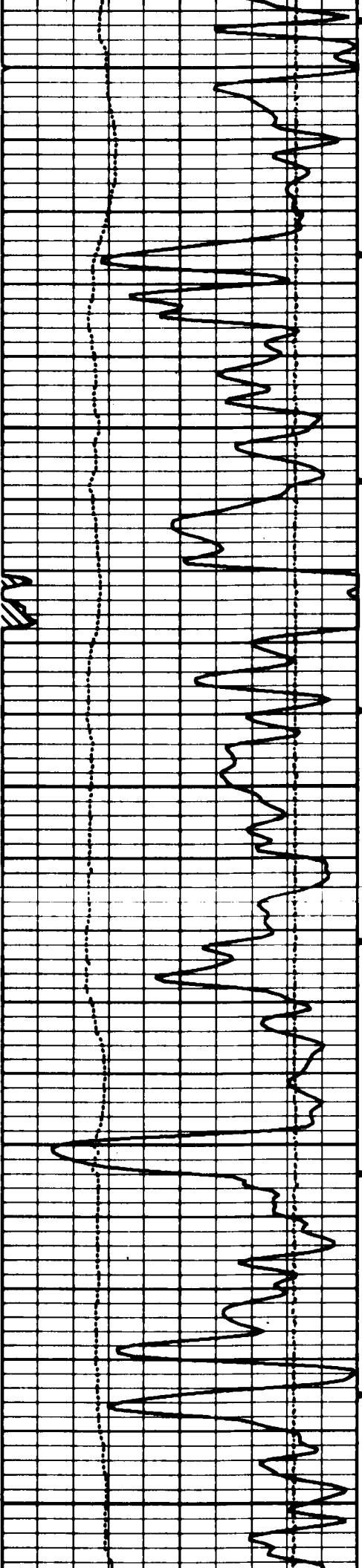
ww

xx

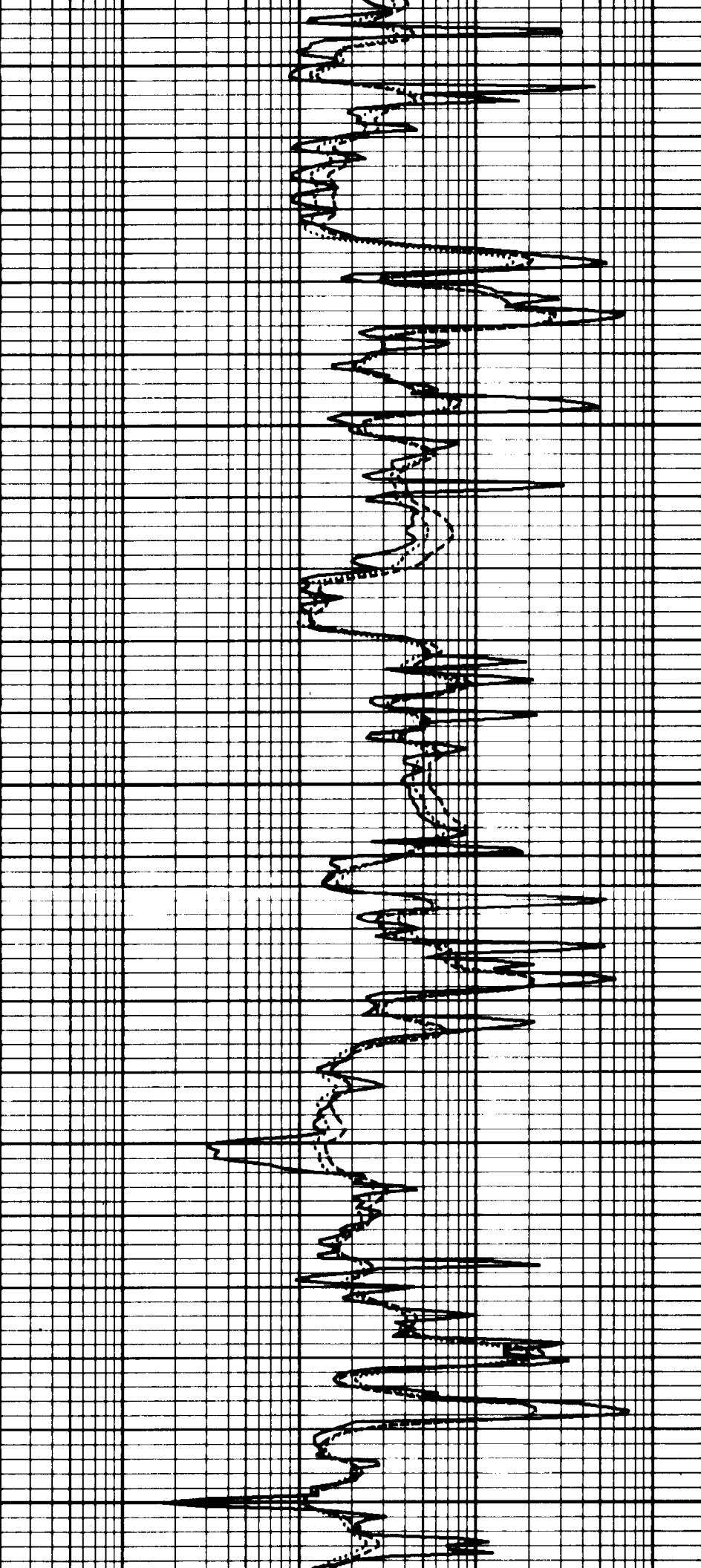
yy

zz

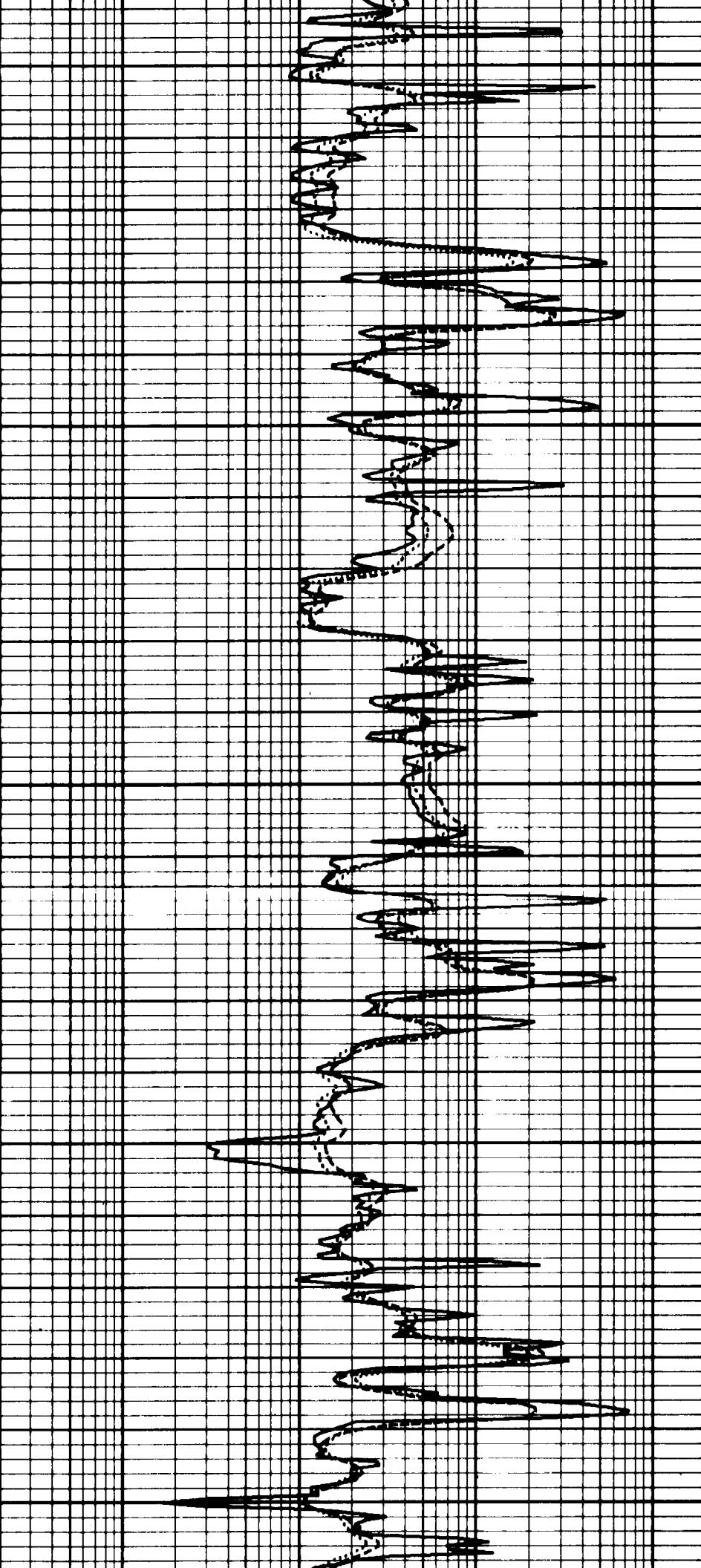
aa



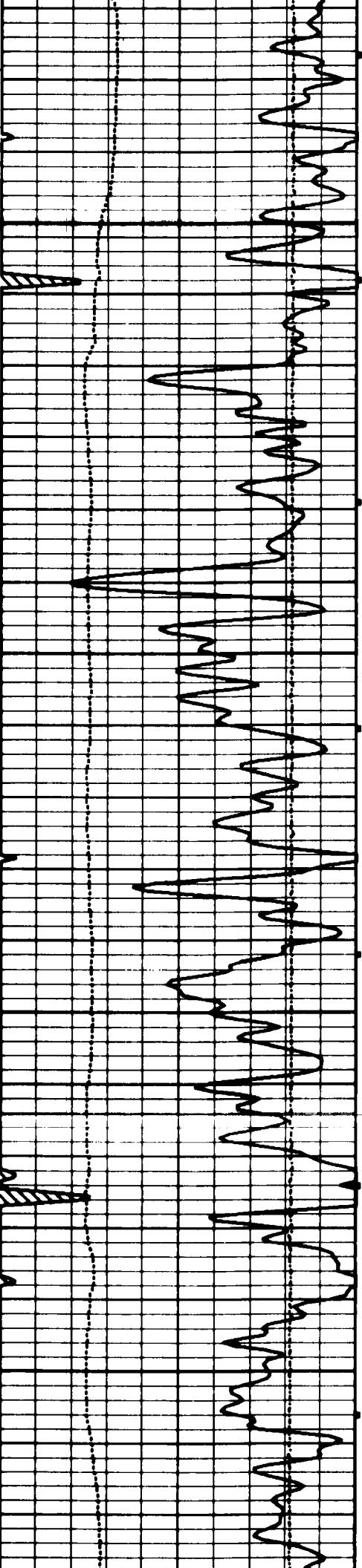
04300



04400

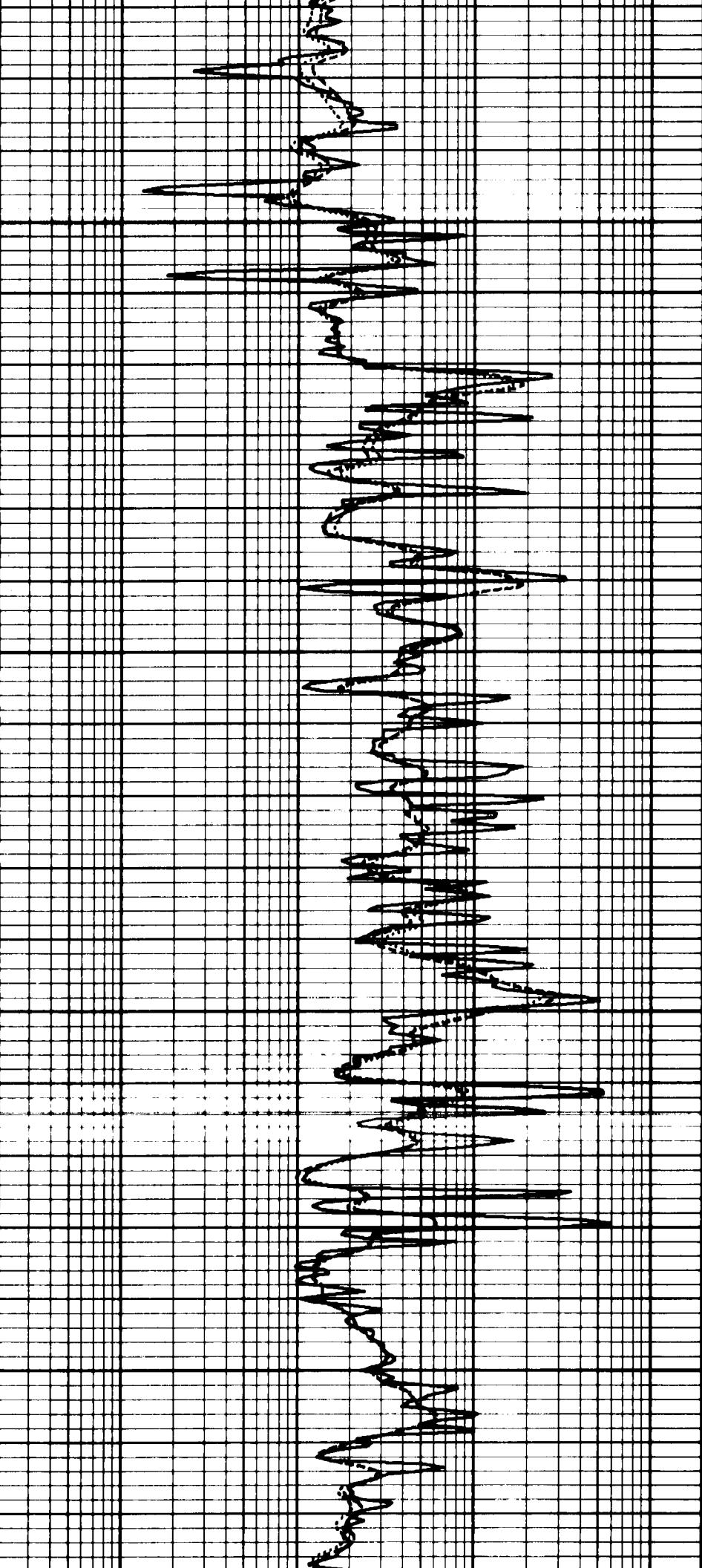


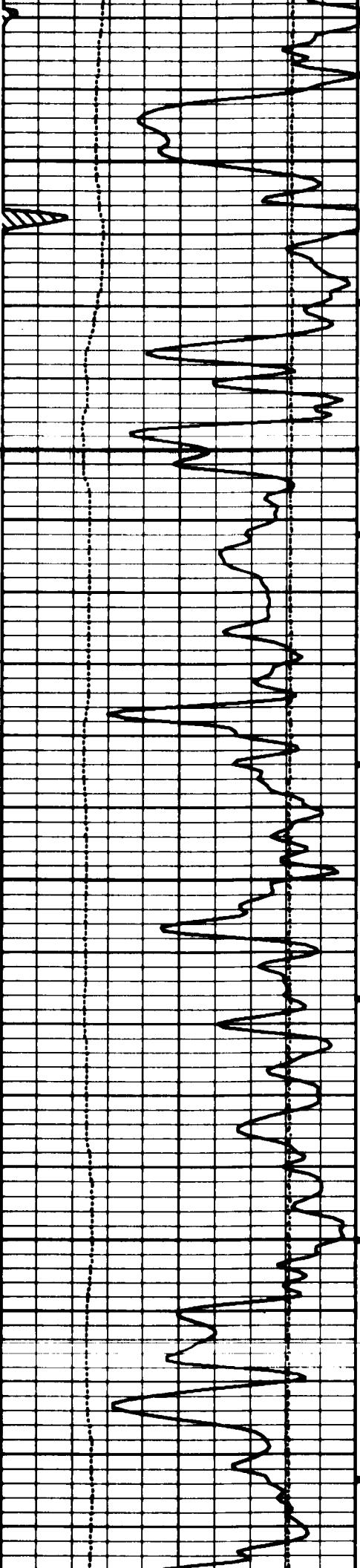
04500



04600

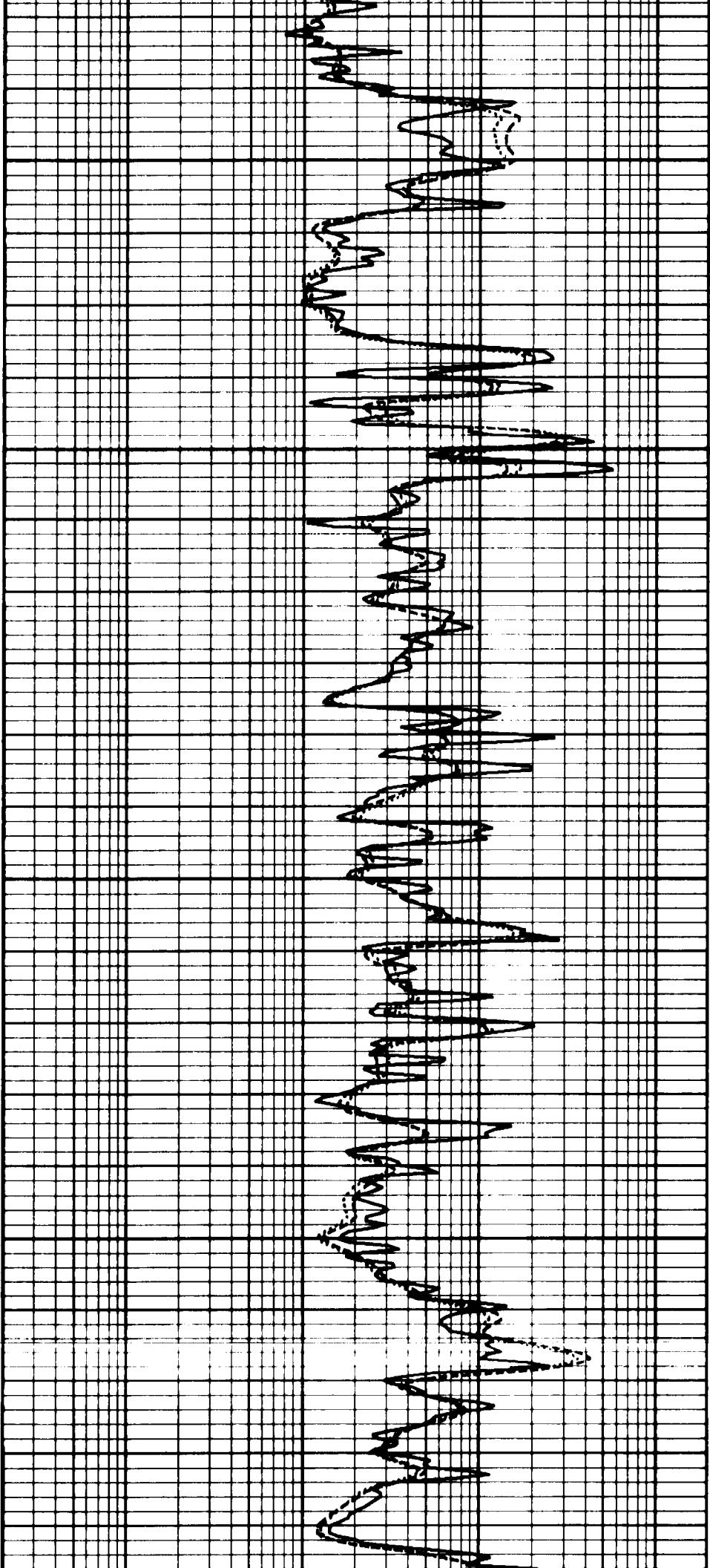
04700

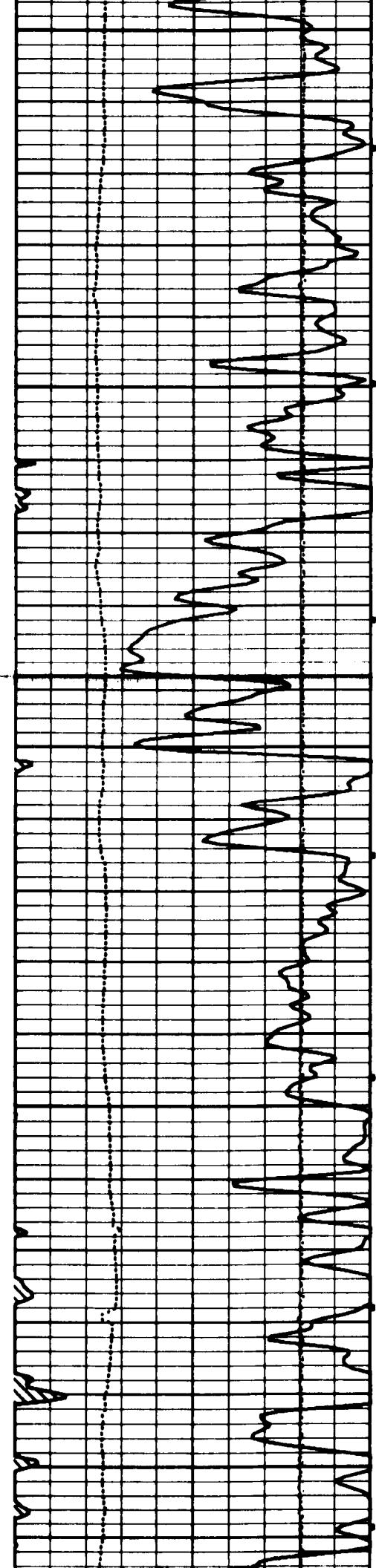




04800

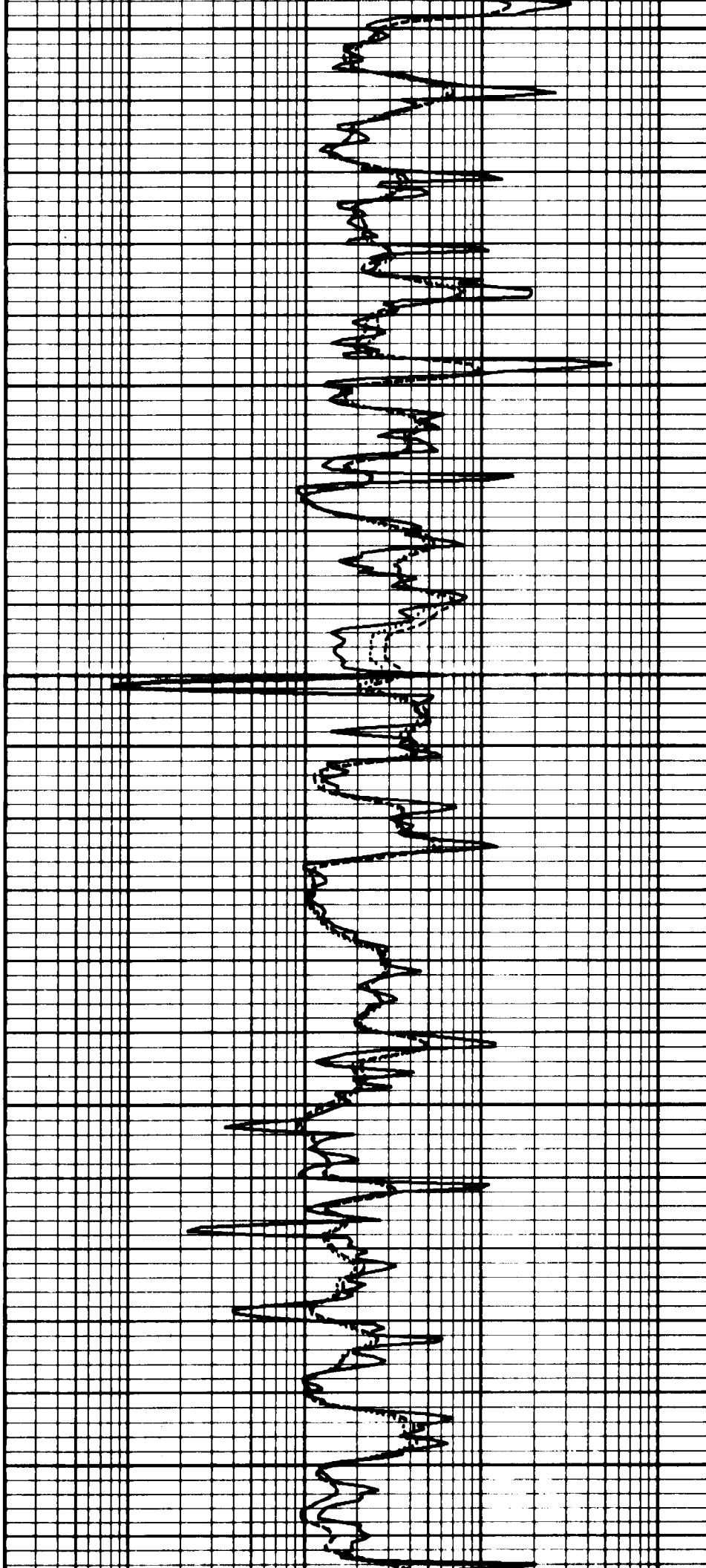
04900

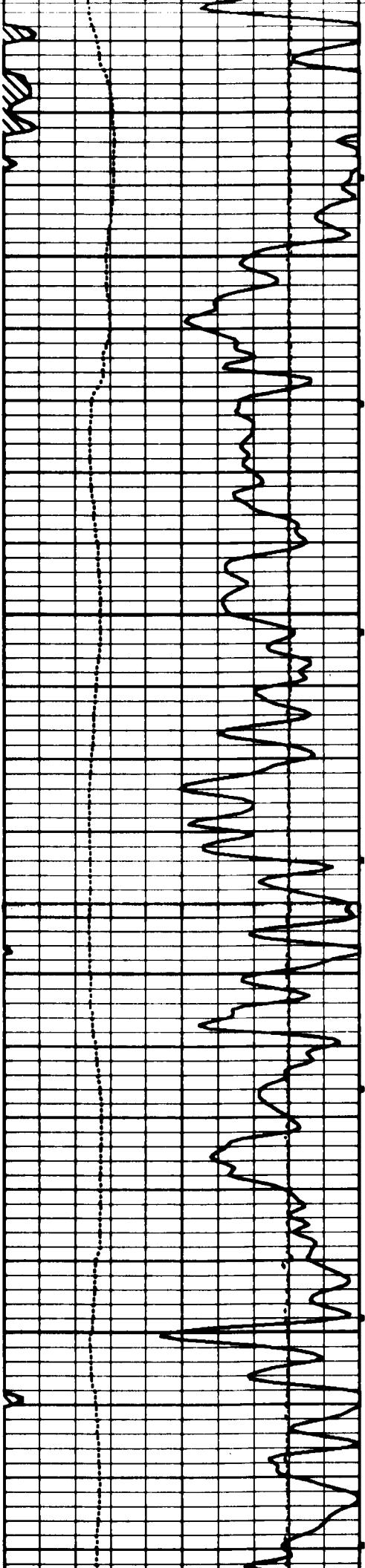




05000

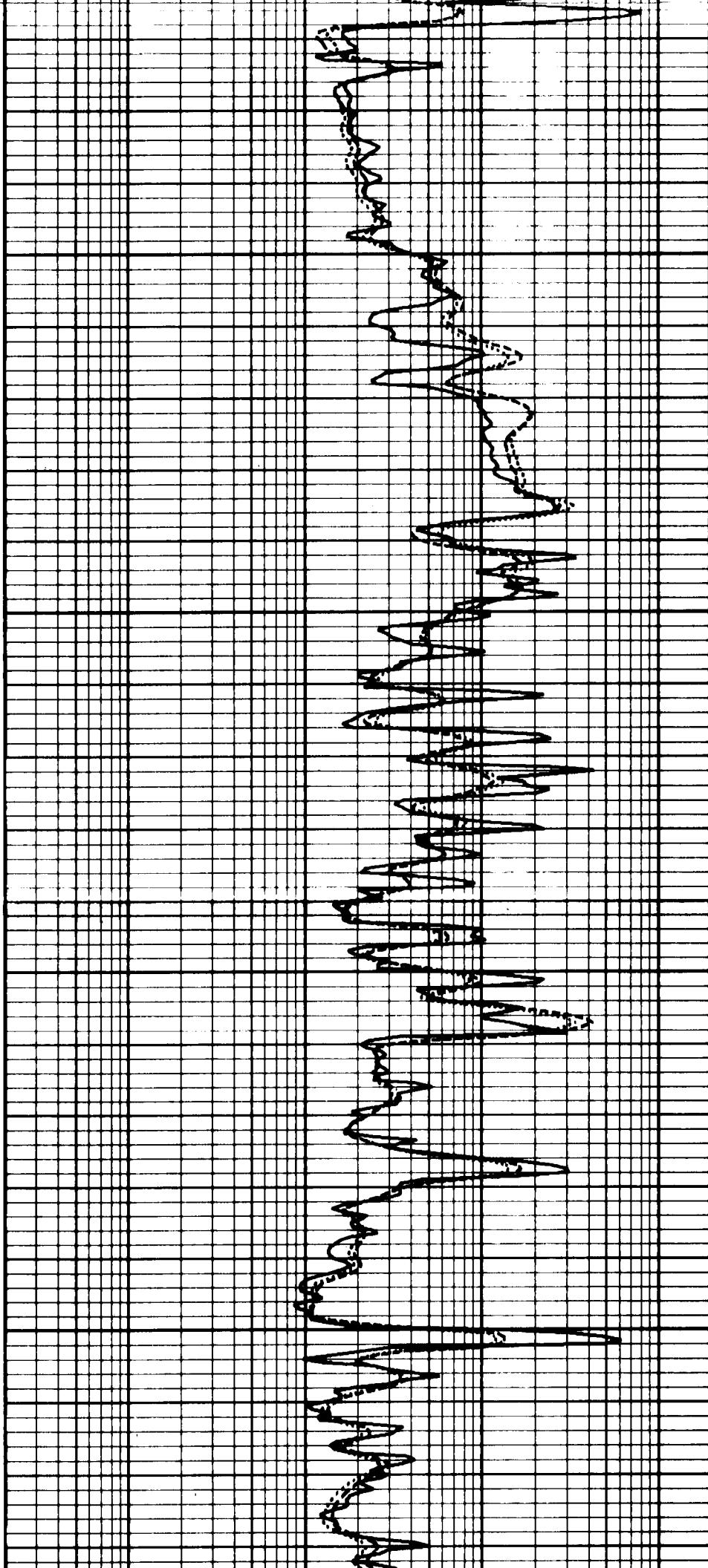
05100

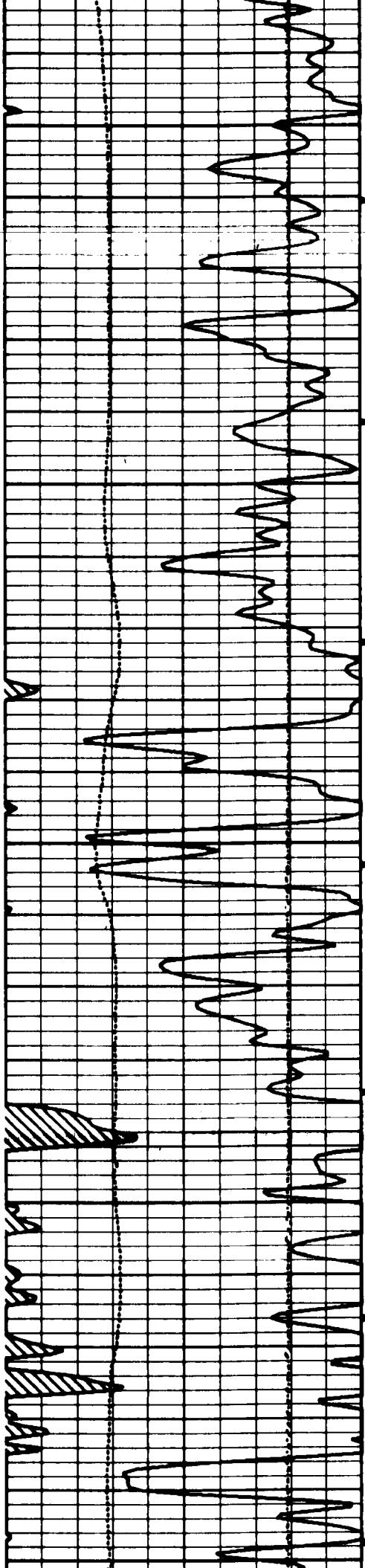




05200

05300

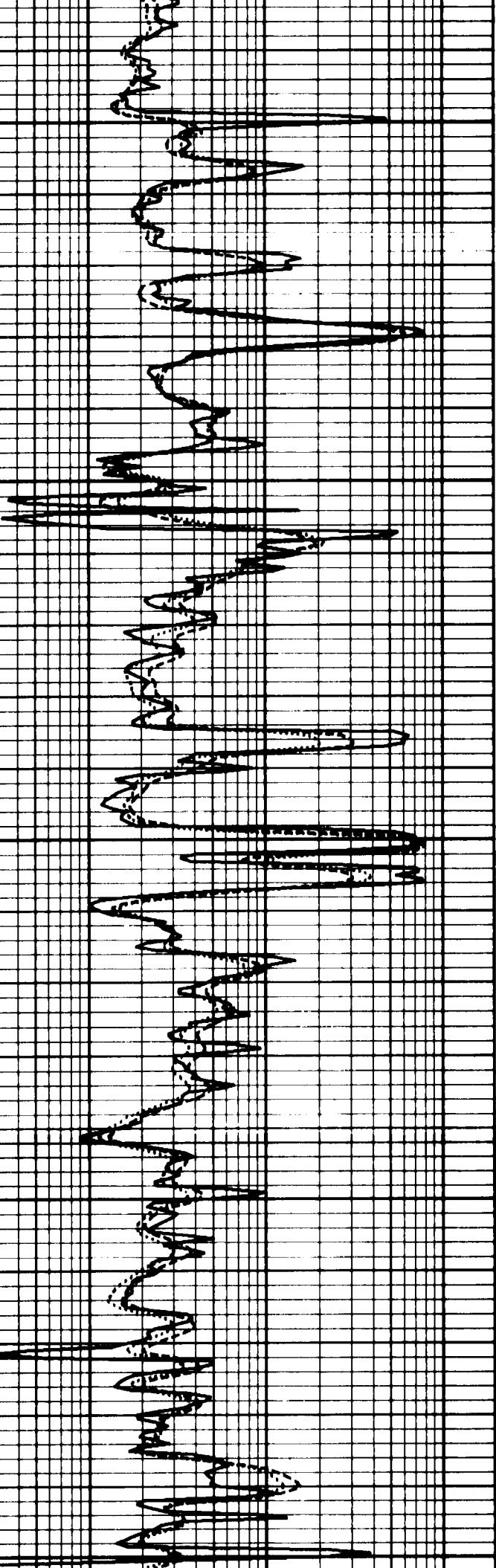


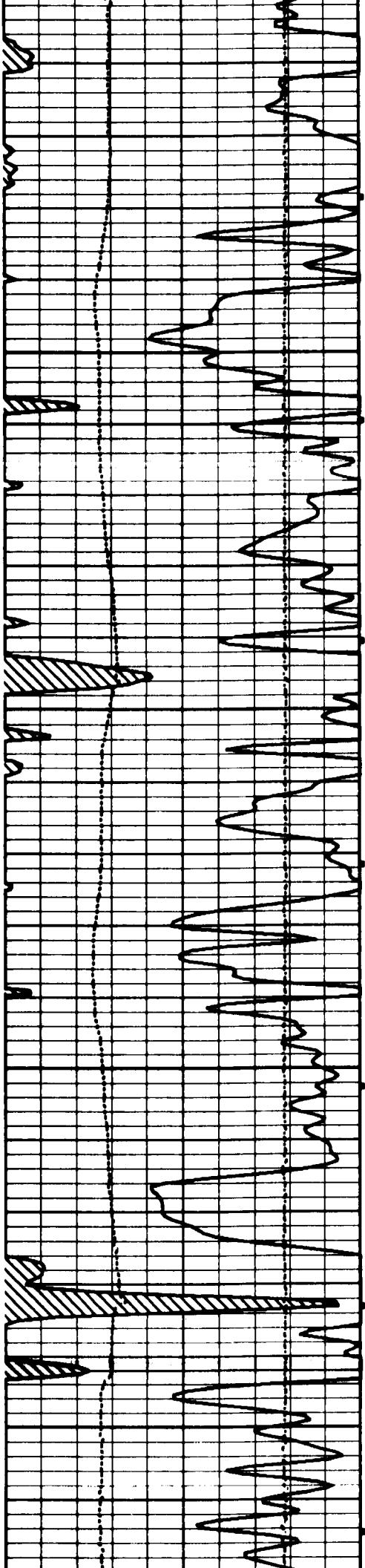


05400

05500

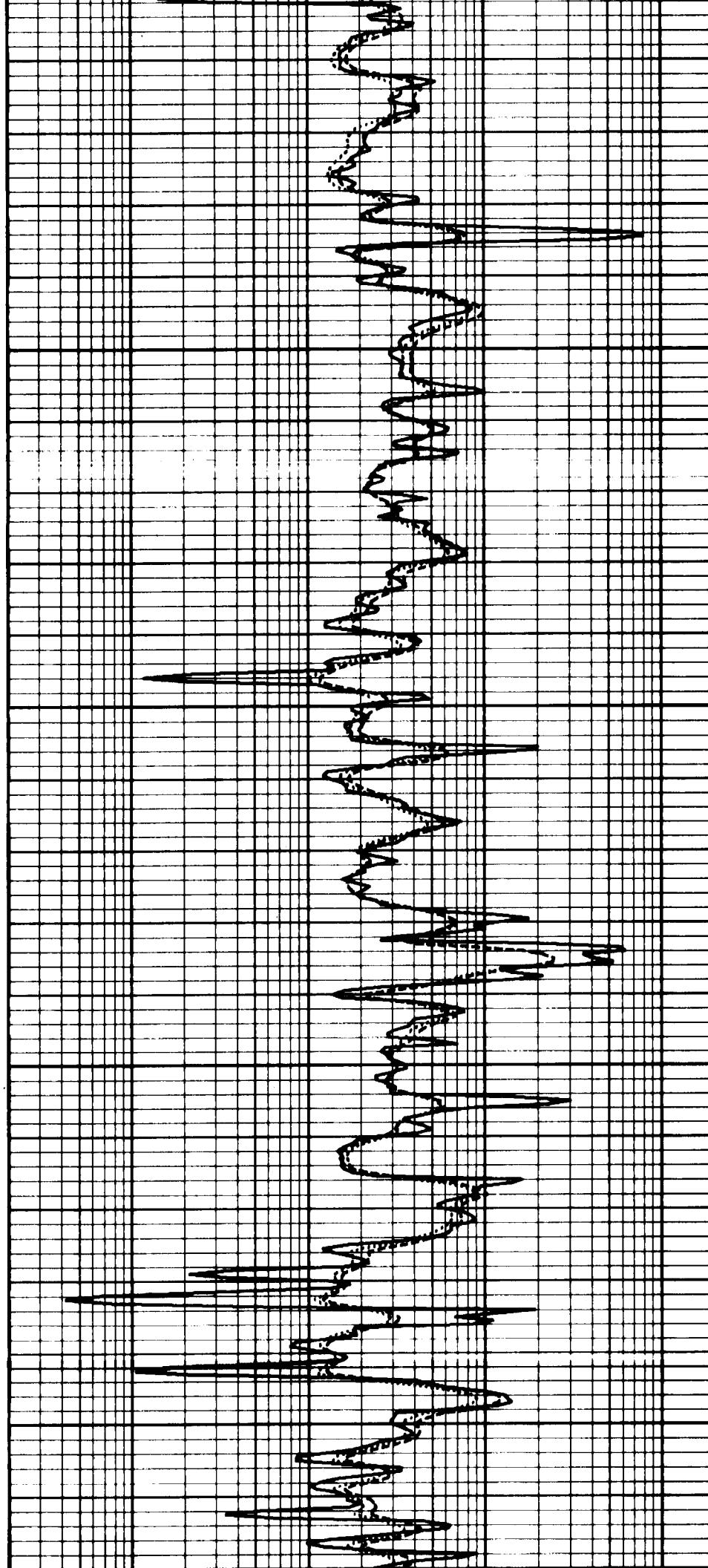
05600

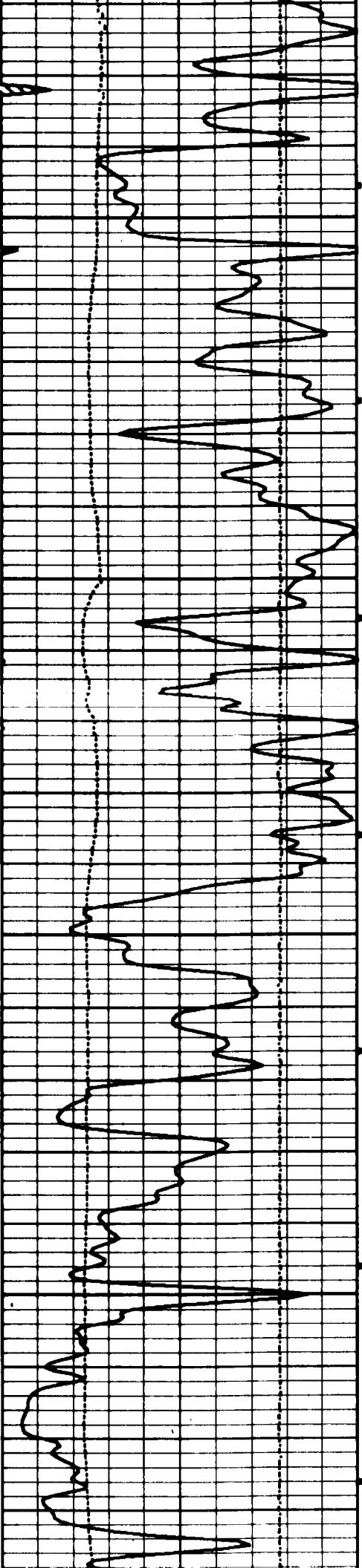




05700

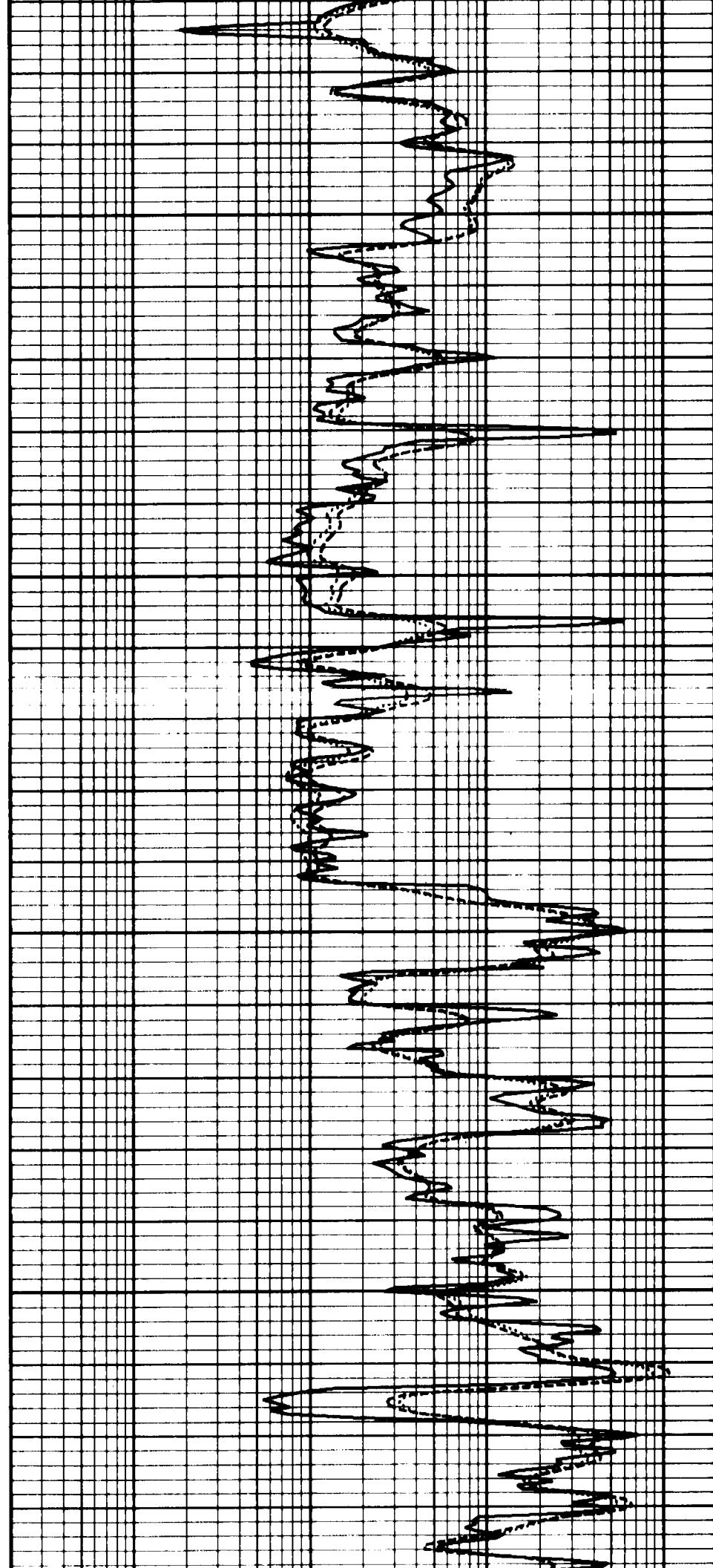
05800





05900

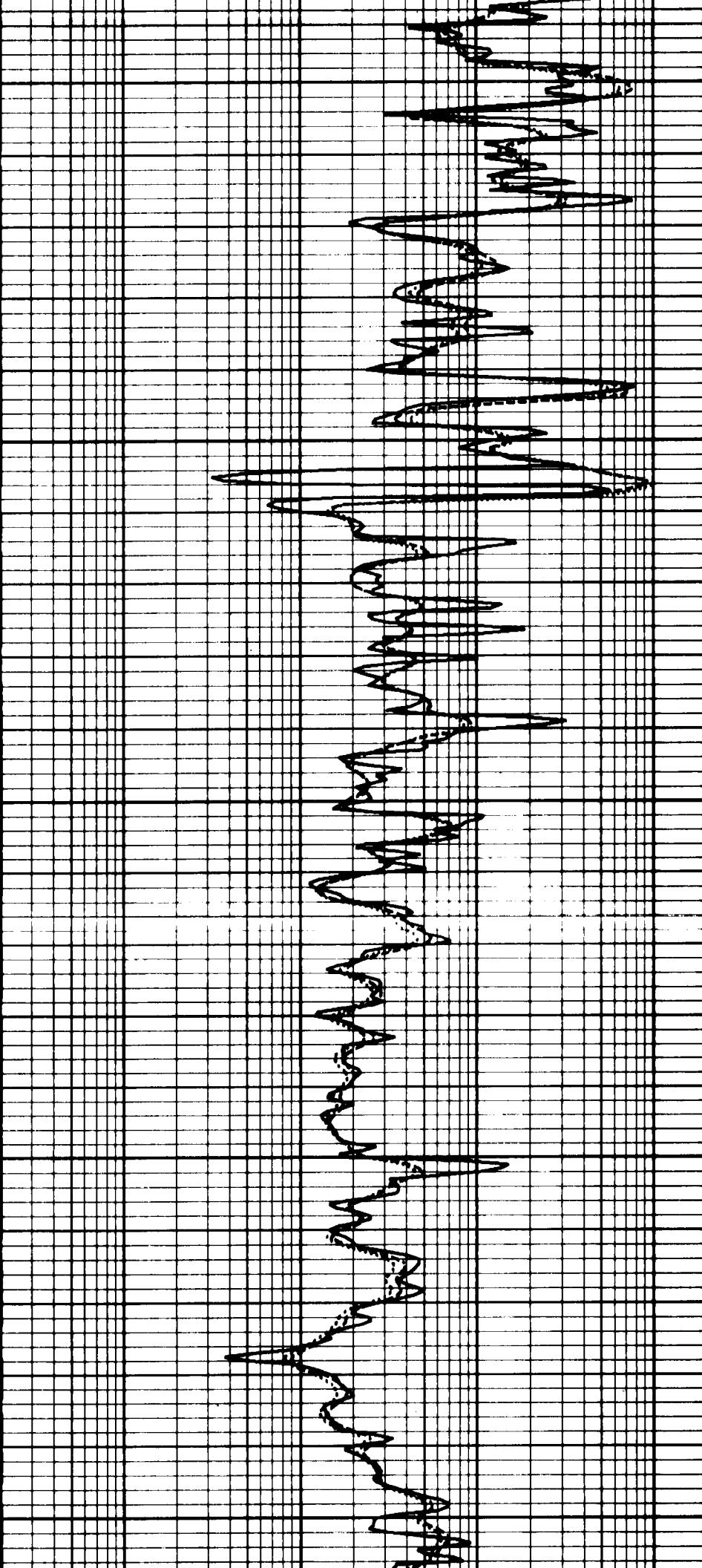
06000

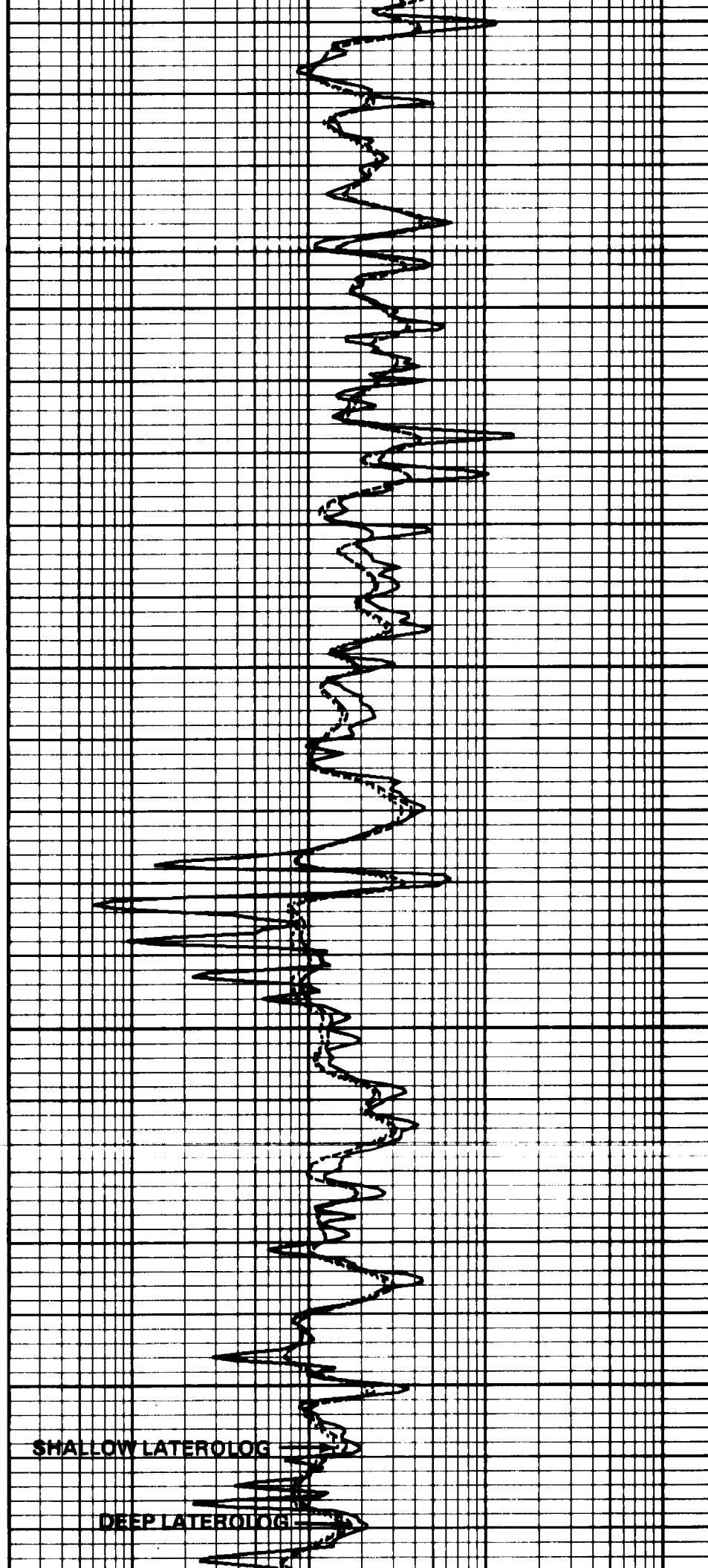
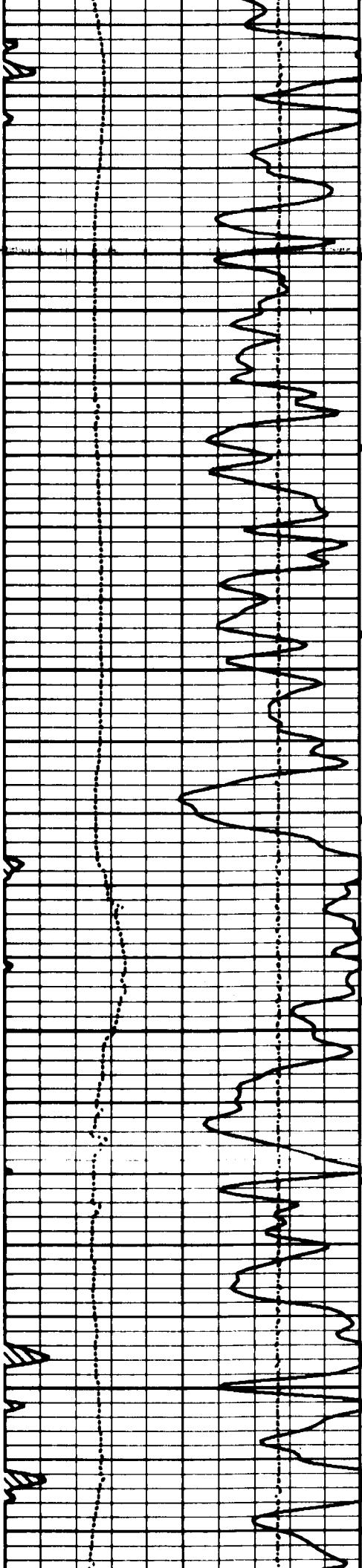


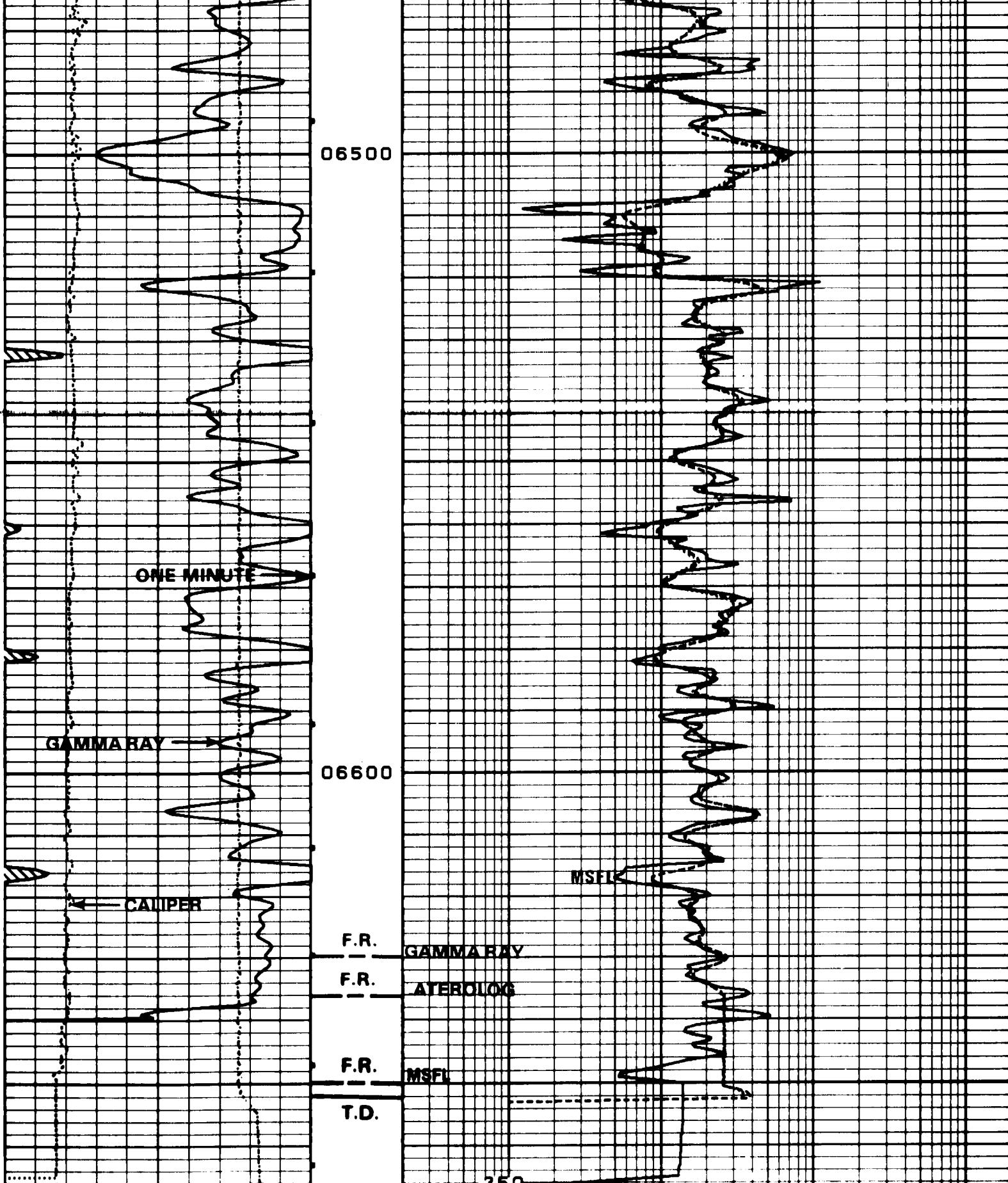


06100

06200







10000 TENSION (LBS) 0

0.2	R-MSF ($\Omega\text{-M}$)	2000
0.2	R-LLS ($\Omega\text{-M}$)	2000
0.2	R-LLD ($\Omega\text{-M}$)	2000

0 GR (API) 150

07-11-87

04:04

6667.5

359265

0093-55

0

0

07-11-87

03:57

6396.0

359265

0093-55

0

3

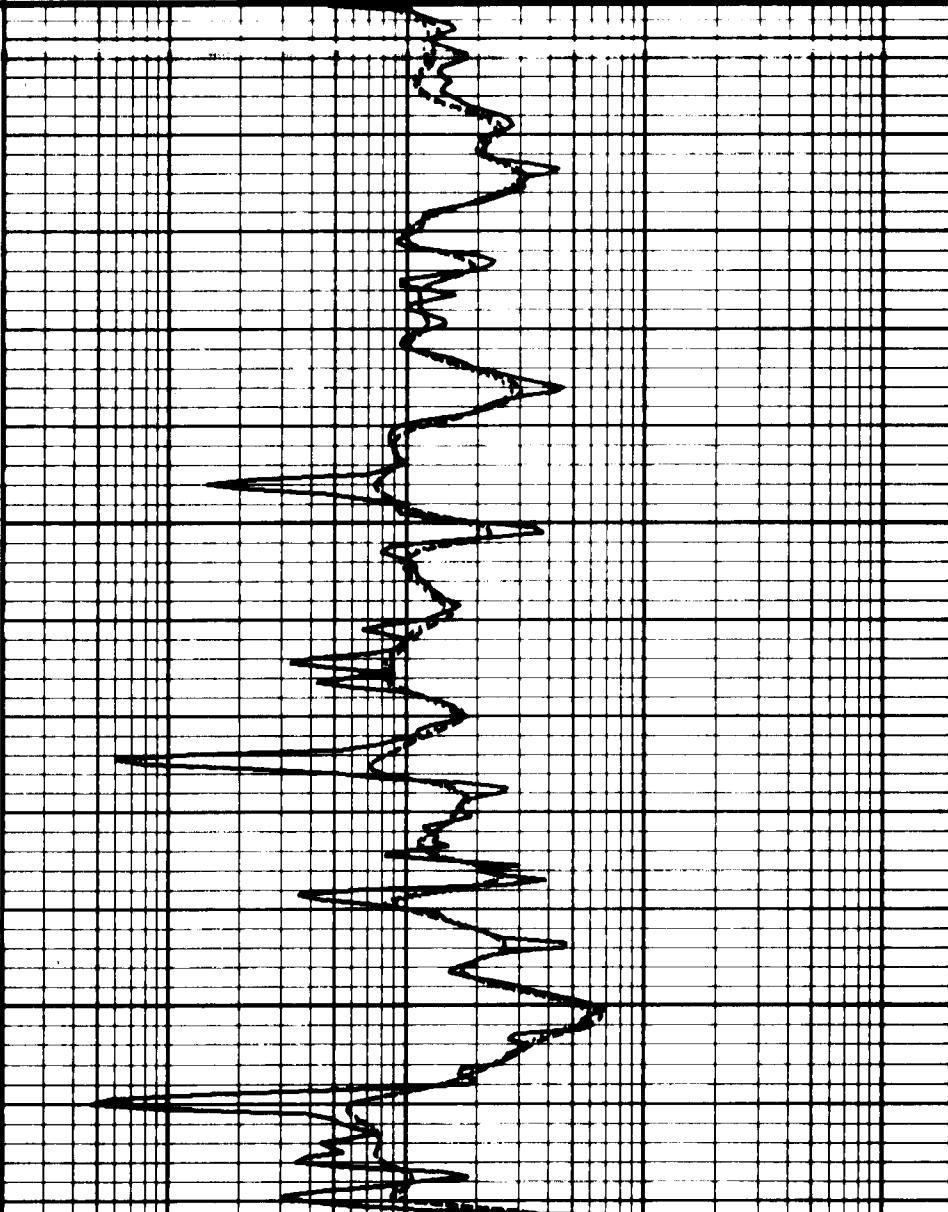
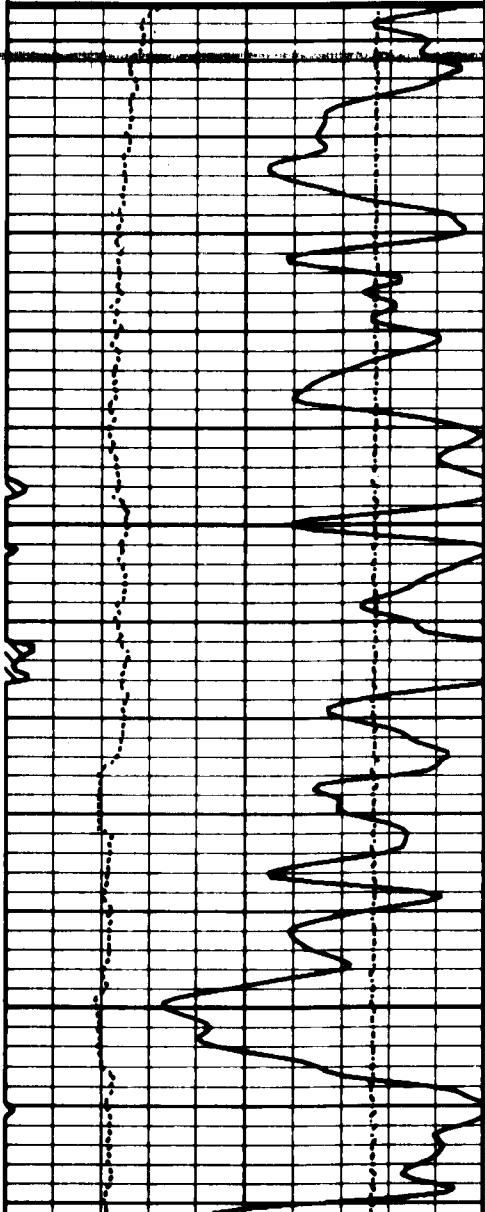
10000TENSION(LBS) 0

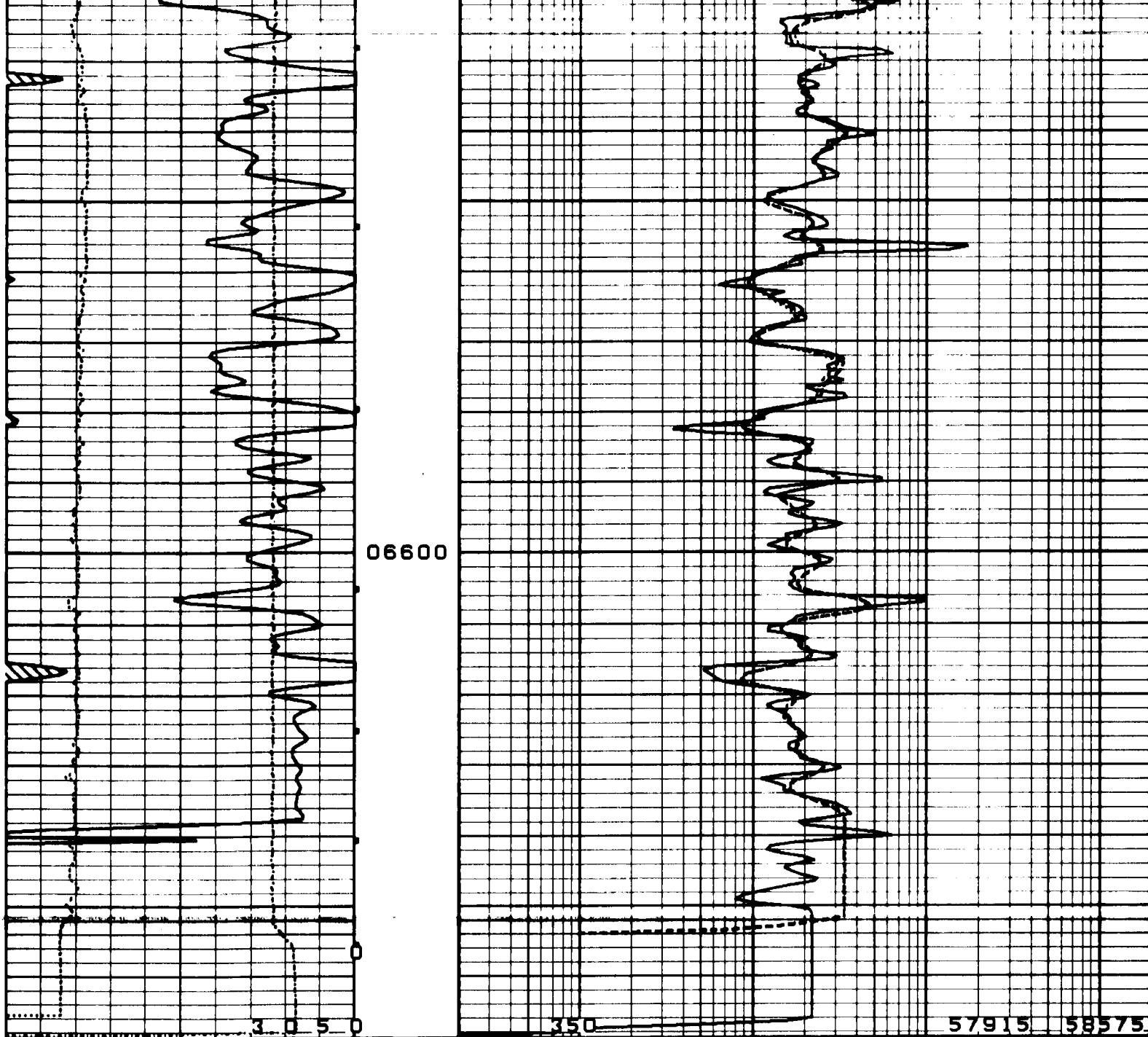
0.2	R-MSF ($\Omega\text{-M}$)	2000
0.2	R-LLS ($\Omega\text{-M}$)	2000
0.2	R-LLD ($\Omega\text{-M}$)	2000

6 CAL-X (IN) 16

0 GR (API) 150

REPEAT SECTION





10000 TENSION (LBS)	0
6 CAL-X (IN)	16
0 GR (API)	150
REPEAT SECTION	

07-11-87 03:48 6668.5 359265 0093-55 0 3

07-11-87	03:42	6605.0	359265	0093-55	0	2
----------	-------	--------	--------	---------	---	---

MICRO-SPHERICALLY FOCUSED BEFORE SURVEY CALIBRATION

TOOL TYPE: MSF- SERIAL NO: 18013

	MEASURED		CALIBRATED			UNITS
	LOW	HIGH	LOW	HIGH		
MSFL	0.5	499.5	0.0	500.0	MMHO/M	

07-11-87	03:41	0.0	359265	0093-55	0	1
----------	-------	-----	--------	---------	---	---

DUAL LATEROLOG BEFORE SURVEY CALIBRATION

TOOL TYPE: DLL- SERIAL NO: 00034

100 OHM-METER CAL

MEASURED	CALIBRATED	UNITS
LLD	212	100
LLS	215	100

REFERENCE DATA

	LLD	LLS	UNITS
ZERO OFFSET	-0.05	0.06	OHM-M
CALIBRATION RATIO	0.470	0.464	
POWER REFERENCE	57915	58575	
DRIVE OUTPUT	1337	1849	
CHANNEL OFFSETS V(0)	81	84	MV
CHANNEL OFFSETS V(90)	86	80	MV
CHANNEL OFFSETS I(0)	77	92	MV
CHANNEL OFFSETS I(90)	82	82	MV

07-11-87	00:17	0.0	359265	0093-55	0	5
----------	-------	-----	--------	---------	---	---

CALIPER BEFORE SURVEY CALIBRATION

TOOL TYPE: MSF-

SERIAL NO:00013

	MEASURED			CALIBRATED		
	SMALL	LARGE	UNITS	SMALL	LARGE	UNITS
CALX	6.58	13.13	IN	7.00	14.00	IN

07-11-87	00:09	0.0	359265	0093-55	0	3
----------	-------	-----	--------	---------	---	---

GAMMA RAY BEFORE SURVEY CALIBRATION

TOOL TYPE: GRT-DC

SERIAL NO:04413

BACKGROUND	CALIBRATOR	STANDARD	UNITS
147.8	455.4	140.0	GAPI
DELTA COUNTS PER SEC: 307.6		CPS/API = 2.197	

07-11-87	06:42	501.0	359265	0093-55	0	6
----------	-------	-------	--------	---------	---	---

MICRO-SPHERICALLY FOCUSED AFTER SURVEY TOOL CHECK

TOOL TYPE: MSF-

SERIAL NO:18013

	LOW		HIGH		UNITS
	BEFORE	AFTER	BEFORE	AFTER	
MSFL	0.0	0.0	500.0	499.9	MMHO/M

07-11-87	06:40	501.0	359265	0093-55	0	5
----------	-------	-------	--------	---------	---	---

DUAL LATEROLOG AFTER SURVEY CALIBRATION

100 OHM-METER MEASUREMENT

RESISTIVITY	BEFORE	AFTER	UNITS
LLD	100	101	OHM-M
LLS	100	99	OHM-M

REFERENCE DATA

	LLD	LLS	UNITS
DRIVE OUTPUT	1353	1856	
CHANNEL OFFSETS V(0)	81	83	MV
CHANNEL OFFSETS V(90)	85	79	MV
CHANNEL OFFSETS I(0)	77	90	MV
CHANNEL OFFSETS I(90)	82	81	MV

Company COORS ENERGY COMPANY

FR 6647

Well UTE TRIBAL NO. 2-31

TD 6650

DTHFR TD 6657

Field ANTELOPE CREEK

Elev

County DUCHESNE State UTAH

KE 6752.5

DE 6751.5

GL 6738.0



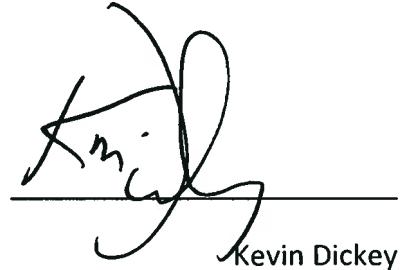
ATTACHMENT NO. 9

LIST OF OWNERS AND AFFIDAVIT NOTIFICATION

AFFIDAVIT OF MAILING

I, Kevin Dickey, Vice President, Operations, Petroglyph Energy, being first duly sworn, depose and state as follows: On July 24th, 2015, I caused to be mailed by certified mail, postage prepaid, return receipt requested, a copy of the Application to convert 1 well that appears on the attached sheet to water injection for enhanced recovery. It was sent to all parties who have an interest within ¼ mile radius from this well. The attached list contains the names of all parties who were notified.

Dated on this 24th day of July, 2015



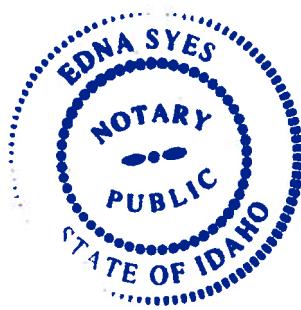
Kevin Dickey

Vice President, Operations

Petroglyph Energy

The forgoing affidavit was subscribed and sworn to before me by Kevin Dickey.

This 24 day of July, 2015.



Edna Syes
Notary Public

July 24th, 2015**Mineral, Surface, and Working Interest Owners**

To Whom It May Concern,

On July 24th, 2015 Petroglyph Energy Inc. submitted to the Environmental Protection Agency an application requesting approval to convert 19 wells to water injection wells in an enhanced recovery program. The well(s) which were submitted are all located in Antelope Creek Field which is operated under a Cooperative Plan of Development between the Ute Tribe and Petroglyph Energy.

Owners at Well's Location

Mineral: Ute Tribe

Operator: Petroglyph

Surface: Ute Tribe

Working Interest: Petroglyph 100%

Owners within Well's ¼ mile radius

No others

No others

No others

Anyone who would be directly and adversely affected by the authorization of the underground disposal into the Upper Green River formation may file a written request for a public hearing before the EPA. Logs and additional information on the subject wells are on file with the EPA, Groundwater Program, Mail Code 8P-W-UIC, 1595 Wynkoop St, Denver, Colorado 80202-1129.

Please contact Kevin Dickey at 208-685-7600 if you have any questions.

Sincerely,

Kevin Dickey

Vice President, Operations, Petroglyph Energy

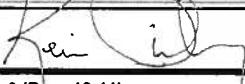
Enclosure

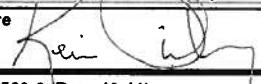
PETROGLYPH OPERATING COMPANY, INC.

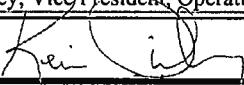
ANTELOPE CREEK FIELD

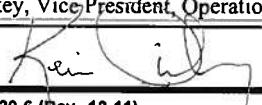
WELLS TO BE CONVERTED TO INJECTION

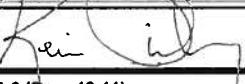
Well Name and Number	Footages	Section, Township, and Range
Ute Tribal 03-05	SHL: 2871' FNL & 752' FWL BHL: 2340' FNL & 684' FWL	3, T5S-R3W
Ute Tribal 03-12	2272' FSL & 575' FWL	3, T5S-R3W
Ute Tribal 08-11	2187' FSL 2011' FWL	8, T5S-R3W
Ute Tribal 08-12	2100' FSL & 515' FWL	8, T5S-R3W
Ute Tribal 09-01	770' FNL & 1059' FEL	9, T5S-R3W
Ute Tribal 09-04	585' FNL & 722' FWL	9, T5S-R3W
Ute Tribal 10-03	600' FNL & 1650' FWL	10, T5S-R3W
Ute Tribal 17-04	697' FNL & 636' FWL	17, T5S-R3W
Ute Tribal 17-05	1797' FNL & 620' FWL	17, T5S-R3W
Ute Tribal 17-12	2527' FSL & 612' FWL	17, T5S-R3W
Ute Tribal 20-06	2050' FNL & 1950' FWL	20, T5S-R3W
Ute Tribal 20-07	1980' FNL & 1980' FEL	20, T5S-R3W
Ute Tribal 20-11	1959' FSL & 2033' FWL	20, T5S-R3W
Ute Tribal 20-15	574' FSL & 1806' FEL	20, T5S-R3W
Ute Tribal 31-03	422' FNL & 2338' FWL	31, T5S-R3W
Ute Tribal 31-05	1980' FNL & 660' FWL	31, T5S-R3W
Ute Tribal 31-07	1976' FNL & 2168' FEL	31, T5S-R3W
Ute Tribal 31-12	1999' FSL & 748' FWL	31, T5S-R3W
Ute Tribal 36-08-E4	1796' FNL & 713' FEL	36, T5S-R4W

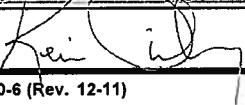
United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>																	
I. EPA ID Number <input type="text"/> U <input type="text"/> T/A <input type="text"/> C																	
Read Attached Instructions Before Starting For Official Use Only																	
Application approved mo day year			Date received mo day year			Permit Number <input type="text"/>			Well ID <input type="text"/>			FINDS Number <input type="text"/>					
II. Owner Name and Address Owner Name <input type="text"/> Petroglyph Energy, Inc.																	
Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number <input type="text"/> (208) 685-7600				Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number <input type="text"/> (208) 685-7600					
City <input type="text"/> Boise			State <input type="text"/> ID			ZIP CODE <input type="text"/> 83707			City <input type="text"/> Boise			State <input type="text"/> ID			ZIP CODE <input type="text"/> 83707		
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes								
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator											
VIII. Well Status (Mark "x")																	
<input checked="" type="checkbox"/> A Operating		Date Started mo day year <input type="text"/>			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed									
IX. Type of Permit Requested (Mark "x" and specify if required)																	
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area			Number of Existing Wells <input type="text"/> 111			Number of Proposed Wells <input type="text"/> 1			Name(s) of field(s) or project(s) <input type="text"/> Antelope Creek <input type="text"/> Ute Tribal 03-05								
X. Class and Type of Well (see reverse)																	
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain <input type="text"/>						D. Number of wells per type (if area permit) <input type="text"/> 1 well, type R							
<input type="text"/> II		<input type="text"/> R															
XI. Location of Well(s) or Approximate Center of Field or Project																	
Latitude Deg Min Sec			Longitude Deg Min Sec			Township and Range Sec Twp Range 1/4 Sec Feet From Line Feet From Line			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
<input type="text"/> 3			<input type="text"/> 5S			<input type="text"/> 3W			<input type="text"/> NW								
XII. Indian Lands (Mark 'x')																	
XIII. Attachments <i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																	
XIV. Certification																	
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)																	
A. Name and Title (Type or Print) <input type="text"/> Kevin Dickey Vice President, Operations																	
B. Phone No. (Area Code and No.) <input type="text"/> (208) 685-7600																	
C. Signature 																	
D. Date Signed <input type="text"/> 07/27/2015																	

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>													
Read Attached Instructions Before Starting For Official Use Only													
Application approved mo day year			Date received mo day year			Permit Number		Well ID		FINDS Number			
II. Owner Name and Address													
Owner Name Petroglyph Energy, Inc.						Owner Name Petroglyph Energy, Inc.							
Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600		Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600			
City Boise			State ID	ZIP CODE 83707		City Boise			State ID	ZIP CODE 83707			
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes				
<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> Private		<input type="checkbox"/> Federal		<input type="checkbox"/> Owner		<input checked="" type="checkbox"/> Operator					
<input checked="" type="checkbox"/> No													
VIII. Well Status (Mark "x")													
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed					
IX. Type of Permit Requested (Mark "x" and specify if required)													
<input type="checkbox"/> A. Individual			<input checked="" type="checkbox"/> B. Area		Number of Existing Wells 111		Number of Proposed Wells 1		Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 03-12				
X. Class and Type of Well (see reverse)													
A. Class(es) (enter code(s)) II		B. Type(s) (enter code(s)) R		C. If class is "other" or type is code 'x,' explain				D. Number of wells per type (if area permit) 1 well, type R					
XI. Location of Well(s) or Approximate Center of Field or Project													
Latitude			Longitude			Township and Range							
Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Sec <input type="text"/> 3	Twp <input type="text"/> SS	Range <input type="text"/> 3W	1/4 Sec <input type="text"/> SW	Feet From <input type="text"/>	Line <input type="text"/>	Feet From <input type="text"/>	Line <input type="text"/>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													
XIII. Attachments													
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)													
For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.													
XIV. Certification													
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)													
A. Name and Title (Type or Print) Kevin Dickey, Vice President, Operations													
B. Phone No. (Area Code and No.) (208) 685-7600													
C. Signature 													
D. Date Signed 07/27/2015													

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>																
I. EPA ID Number <input type="text"/> U <input type="text"/> T/A <input type="text"/> C																
Read Attached Instructions Before Starting For Official Use Only																
Application approved mo day year			Date received mo day year			Permit Number <input type="text"/>			Well ID <input type="text"/>			FINDS Number <input type="text"/>				
II. Owner Name and Address																
Owner Name <input type="text"/> Petroglyph Energy, Inc.						III. Operator Name and Address <input type="text"/> Petroglyph Energy, Inc.										
Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number <input type="text"/> (208) 685-7600		Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number <input type="text"/> (208) 685-7600						
City <input type="text"/> Boise			State <input type="text"/> ID		ZIP CODE <input type="text"/> 83707		City <input type="text"/> Boise			State <input type="text"/> ID		ZIP CODE <input type="text"/> 83707				
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes <input type="text"/>							
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator										
VIII. Well Status (Mark "x")																
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed								
IX. Type of Permit Requested (Mark "x" and specify if required)																
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area			Number of Existing Wells <input type="text"/> 111			Number of Proposed Wells <input type="text"/> 1			Name(s) of field(s) or project(s) <input type="text"/> Antelope Creek <input type="text"/> Ute Tribal 08-11							
X. Class and Type of Well (see reverse)																
A. Class(es) (enter code(s)) <input type="text"/> II		B. Type(s) (enter code(s)) <input type="text"/> R		C. If class is "other" or type is code 'x,' explain <input type="text"/>						D. Number of wells per type (if area permit) <input type="text"/> 1 well, type R						
XI. Location of Well(s) or Approximate Center of Field or Project																
Latitude Deg Min Sec			Longitude Deg Min Sec			Township and Range Sec Twp Range <input type="text"/> 8 SS 3W 1/4 Sec Feet From Line <input type="text"/> SW <input type="text"/> <input type="text"/>			XII. Indian Lands (Mark 'x') <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
XIII. Attachments <i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																
XIV. Certification																
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)																
A. Name and Title (Type or Print) <input type="text"/> Kevin Dickey, Vice President, Operations																
B. Phone No. (Area Code and No.) <input type="text"/> (208) 685-7600																
C. Signature 																
D. Date Signed <input type="text"/> 07/27/2015																

 <p>United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i></p>		I. EPA ID Number			
		U	T/A C		
Read Attached Instructions Before Starting For Official Use Only					
Application approved mo day year	Date received mo day year	Permit Number	Well ID	FINDS Number	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
II. Owner Name and Address			III. Operator Name and Address		
Owner Name Petroglyph Energy, Inc.			Owner Name Petroglyph Energy, Inc.		
Street Address 960 Broadway Ave. Suite 500 PO Box 70019		Phone Number (208) 685-7600	Street Address 960 Broadway Ave. Suite 500 PO Box 70019		Phone Number (208) 685-7600
City Boise	State ID	ZIP CODE 83707	City Boise	State ID	ZIP CODE 83707
IV. Commercial Facility	V. Ownership	VI. Legal Contact		VII. SIC Codes	
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator	<input type="text"/>		
VIII. Well Status (Mark "x")					
<input checked="" type="checkbox"/> A Operating	Date Started mo day year <input type="text"/>	<input checked="" type="checkbox"/> B. Modification/Conversion	<input type="checkbox"/> C. Proposed		
IX. Type of Permit Requested (Mark "x" and specify if required)					
<input type="checkbox"/> A. Individual	<input checked="" type="checkbox"/> B. Area	Number of Existing Wells <input type="text"/> 111	Number of Proposed Wells <input type="text"/> 1	Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 08-12	
X. Class and Type of Well (see reverse)					
A. Class(es) (enter code(s)) <input type="text"/> II	B. Type(s) (enter code(s)) <input type="text"/> R	C. If class is "other" or type is code 'x,' explain <input type="text"/>		D. Number of wells per type (If area permit) 1 well, type R	
XI. Location of Well(s) or Approximate Center of Field or Project				XII. Indian Lands (Mark 'x')	
Latitude Deg <input type="text"/> Min <input type="text"/> Sec <input type="text"/>	Longitude Deg <input type="text"/> Min <input type="text"/> Sec <input type="text"/>	Township and Range Sec <input type="text"/> Twp <input type="text"/> Range <input type="text"/> 8 SS 3W SW		Feet From <input type="text"/> Line <input type="text"/>	Feet From <input type="text"/> Line <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
XIII. Attachments (Complete the following questions on a separate sheet(s) and number accordingly; see instructions)					
For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.					
XIV. Certification					
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)					
A. Name and Title (Type or Print) Kevin Dickey, Vice President, Operations			B. Phone No. (Area Code and No.) <input type="text"/> (208) 685-7600		
C. Signature 			D. Date Signed <input type="text"/> 07/27/2015		

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>													
Read Attached Instructions Before Starting For Official Use Only													
Application approved mo day year			Date received mo day year			Permit Number			Well ID		FINDS Number		
II. Owner Name and Address													
Owner Name Petroglyph Energy, Inc.						Owner Name Petroglyph Energy, Inc.							
Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600		Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600			
City Boise		State ID		ZIP CODE 83707		City Boise		State ID		ZIP CODE 83707			
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes				
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator							
VIII. Well Status (Mark "x")													
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed					
IX. Type of Permit Requested (Mark "x" and specify if required)													
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area			Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 09-01				
X. Class and Type of Well (see reverse)													
A. Class(es) (enter code(s)) II		B. Type(s) (enter code(s)) R		C. If class is "other" or type is code 'x,' explain					D. Number of wells per type (if area permit) 1 well, type R				
XI. Location of Well(s) or Approximate Center of Field or Project													
Latitude			Longitude			Township and Range							
Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Deg <input type="text"/>	Min <input type="text"/>	Sec <input type="text"/>	Sec <input type="text"/>	Twp <input type="text"/>	Range <input type="text"/>	1/4 Sec <input type="text"/>	Feet From <input type="text"/>	Line <input type="text"/>	Feet From <input type="text"/>	Line <input type="text"/>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													
XIII. Attachments <i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.													
XIV. Certification													
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)													
A. Name and Title (Type or Print) Kevin Dickey, Vice President, Operations													
B. Phone No. (Area Code and No.) (208) 685-7600													
C. Signature 													
D. Date Signed 07/27/2015													

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number							
												T/A	C						
U																			
Read Attached Instructions Before Starting For Official Use Only																			
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number							
II. Owner Name and Address										III. Operator Name and Address									
Owner Name Petroglyph Energy, Inc.										Owner Name Petroglyph Energy, Inc.									
Street Address 960 Broadway Ave. Suite 500 PO Box 70019					Phone Number (208) 685-7600					Street Address 960 Broadway Ave. Suite 500 PO Box 70019					Phone Number (208) 685-7600				
City Boise					State ID		ZIP CODE 83707			City Boise					State ID		ZIP CODE 83707		
IV. Commercial Facility				V. Ownership						VI. Legal Contact				VII. SIC Codes					
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other						<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator									
VIII. Well Status (Mark "x")																			
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed											
IX. Type of Permit Requested (Mark "x" and specify if required)																			
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 09-04									
X. Class and Type of Well (see reverse)																			
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain								D. Number of wells per type (if area permit)							
II		R										1 well, type R							
XI. Location of Well(s) or Approximate Center of Field or Project														XII. Indian Lands (Mark 'x')					
Latitude			Longitude			Township and Range												<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line						
9	55	3W	NW																
XIII. Attachments																			
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)																			
For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																			
XIV. Certification																			
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)																			
A. Name and Title (Type or Print)										B. Phone No. (Area Code and No.)									
Kevin Dickey, Vice President, Operations										(208) 685-7600									
C. Signature										D. Date Signed									
										07/27/2015									



United States Environmental Protection Agency
**Underground Injection Control
 Permit Application**

(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)

I. EPA ID Number		
U	T/A	C

**Read Attached Instructions Before Starting
 For Official Use Only**

Application approved mo day year	Date received mo day year	Permit Number	Well ID	FINDS Number

II. Owner Name and Address			III. Operator Name and Address		
Owner Name Petroglyph Energy, Inc.			Owner Name Petroglyph Energy, Inc.		
Street Address 960 Broadway Ave. Suite 500 PO Box 70019		Phone Number (208) 685-7600	Street Address 960 Broadway Ave. Suite 500 PO Box 70019		Phone Number (208) 685-7600
City Boise	State ID	ZIP CODE 83707	City Boise	State ID	ZIP CODE 83707
IV. Commercial Facility		V. Ownership		VI. Legal Contact	
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other		<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator	
VII. SIC Codes					

VIII. Well Status (Mark "x")			
<input checked="" type="checkbox"/> A <input type="checkbox"/> B Operating	Date Started mo day year 111	<input checked="" type="checkbox"/> B. Modification/Conversion 1	<input type="checkbox"/> C. Proposed Antelope Creek Ute Tribal 10-03

IX. Type of Permit Requested (Mark "x" and specify if required)					
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area		Number of Existing Wells 111	Number of Proposed Wells 1	Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 10-03	

X. Class and Type of Well (see reverse)					
A. Class(es) (enter code(s)) II	B. Type(s) (enter code(s)) R	C. If class is "other" or type is code 'x,' explain			D. Number of wells per type (if area permit) 1 well, type R

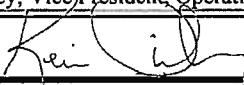
XI. Location of Well(s) or Approximate Center of Field or Project										XII. Indian Lands (Mark 'x')			
Latitude			Longitude			Township and Range							
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line
						10	SS	3W	NW				

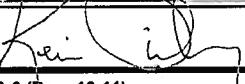
Yes

No

XIII. Attachments <i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.													
---	--	--	--	--	--	--	--	--	--	--	--	--	--

XIV. Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)													
A. Name and Title (Type or Print) Kevin Dickey, Vice-President, Operations							B. Phone No. (Area Code and No.) (208) 685-7600						
C. Signature 							D. Date Signed 07/27/2015						

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>													
Read Attached Instructions Before Starting For Official Use Only													
Application approved mo day year			Date received mo day year			Permit Number		Well ID		FINDS Number			
II. Owner Name and Address						III. Operator Name and Address							
Owner Name Petroglyph Energy, Inc.						Owner Name Petroglyph Energy, Inc.							
Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600		Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600			
City Boise		State ID		ZIP CODE 83707		City Boise		State ID		ZIP CODE 83707			
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes				
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator							
VIII. Well Status (Mark "x")													
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed					
IX. Type of Permit Requested (Mark "x" and specify if required)													
<input type="checkbox"/> A. Individual			<input checked="" type="checkbox"/> B. Area		Number of Existing Wells 111		Number of Proposed Wells 1		Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 17-04				
X. Class and Type of Well (see reverse)													
A. Class(es) (enter code(s)) II		B. Type(s) (enter code(s)) R		C. If class is "other" or type is code 'x,' explain				D. Number of wells per type (if area permit) 1 well, type R					
XI. Location of Well(s) or Approximate Center of Field or Project													
Latitude			Longitude			Township and Range						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line
						17	5S	3W	NW				
XII. Indian Lands (Mark 'x')													
XIII. Attachments													
<i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.													
XIV. Certification													
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)													
A. Name and Title (Type or Print) Kevin Dickey, Vice President, Operations						B. Phone No. (Area Code and No.) (208) 685-7600							
C. Signature 						D. Date Signed 07/27/2015							

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number					
												T/A		C			
U																	
Read Attached Instructions Before Starting For Official Use Only																	
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number					
II. Owner Name and Address												III. Operator Name and Address					
Owner Name Petroglyph Energy, Inc.												Owner Name Petroglyph Energy, Inc.					
Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600			Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600		
City Boise			State ID		ZIP CODE 83707		City Boise			State ID		ZIP CODE 83707					
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes								
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator											
VIII. Well Status (Mark "x")																	
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed									
IX. Type of Permit Requested (Mark "x" and specify if required)																	
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area			Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 17-05								
X. Class and Type of Well (see reverse)																	
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain					D. Number of wells per type (if area permit) 1 well, type R								
II		R															
XI. Location of Well(s) or Approximate Center of Field or Project												XII. Indian Lands (Mark 'x')					
Latitude			Longitude			Township and Range									<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line				
						17	5S	3W	NW								
XIII. Attachments																	
(Complete the following questions on a separate sheet(s) and number accordingly; see Instructions)																	
For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																	
XIV. Certification																	
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)																	
A. Name and Title (Type or Print)												B. Phone No. (Area Code and No.)					
Kevin Dickey, Vice President, Operations												(208) 685-7600					
C. Signature												D. Date Signed					
												07/27/2015					



United States Environmental Protection Agency
**Underground Injection Control
 Permit Application**
(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)

I. EPA ID Number

T/A	C
U	

**Read Attached Instructions Before Starting
 For Official Use Only**

Application approved mo day year	Date received mo day year	Permit Number	Well ID	FINDS Number

II. Owner Name and Address**III. Operator Name and Address**

Owner Name
 Petroglyph Energy, Inc.

Owner Name
 Petroglyph Energy, Inc.

Street Address
 960 Broadway Ave. Suite 500 PO Box 70019

Phone Number
 (208) 685-7600

Street Address
 960 Broadway Ave. Suite 500 PO Box 70019

Phone Number
 (208) 685-7600

City
 Boise

State
 ID

ZIP CODE
 83707

City
 Boise

State
 ID

ZIP CODE
 83707

IV. Commercial Facility**V. Ownership****VI. Legal Contact****VII. SIC Codes**

Yes
 No

Private
 Federal
 Other

Owner
 Operator

--	--	--

VIII. Well Status (Mark "x")

A
 Operating

Date Started
mo day year

B. Modification/Conversion

C. Proposed

A. Individual

B. Area

Number of Existing Wells

111

Number of Proposed Wells

1

Name(s) of field(s) or project(s)

Antelope Creek
 Ute Tribal 17-12

X. Class and Type of Well (see reverse)

A. Class(es)
 (enter code(s))

B. Type(s)
 (enter code(s))

C. If class is "other" or type is code 'x,' explain

D. Number of wells per type (if area permit)

I well, type R

II

R

XI. Location of Well(s) or Approximate Center of Field or Project**XII. Indian Lands (Mark 'x')**

Latitude			Longitude			Township and Range							
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line
						17	5S	3W	SW				

Yes
 No

XIII. Attachments

(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)

For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A--U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.

XIV. Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

A. Name and Title (Type or Print)

Kevin Dickey, Vice President, Operations

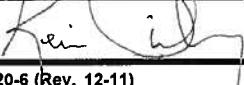
B. Phone No. (Area Code and No.)

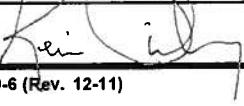
(208) 685-7600

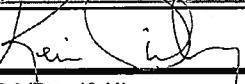
C. Signature

D. Date Signed

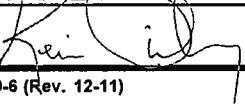
07/27/2015

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number 					
												T/A	C				
												U					
Read Attached Instructions Before Starting For Official Use Only																	
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number					
II. Owner Name and Address												III. Operator Name and Address					
Owner Name Petroglyph Energy, Inc.												Owner Name Petroglyph Energy, Inc.					
Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600			Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600		
City Boise			State ID			ZIP CODE 83707			City Boise			State ID			ZIP CODE 83707		
IV. Commercial Facility				V. Ownership				VI. Legal Contact				VII. SIC Codes					
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other				<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator									
VIII. Well Status (Mark "x")																	
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion						<input type="checkbox"/> C. Proposed						
IX. Type of Permit Requested (Mark "x" and specify if required)																	
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 20-06							
X. Class and Type of Well (see reverse)																	
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain II R								D. Number of wells per type (if area permit) 1 well, type R					
XI. Location of Well(s) or Approximate Center of Field or Project															XII. Indian Lands (Mark 'x')		
Latitude Deg Min Sec			Longitude Deg Min Sec			Township and Range Sec Twp Range 1/4 Sec 20 SS 3W NW									<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
XIII. Attachments <i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																	
XIV. Certification I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)																	
A. Name and Title (Type or Print) Kevin Dickey, Vice President, Operations												B. Phone No. (Area Code and No.) (208) 685-7600					
C. Signature 												D. Date Signed 07/27/2015					

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number U		T/A	C				
<i>Read Attached Instructions Before Starting For Official Use Only</i>																			
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number							
II. Owner Name and Address												III. Operator Name and Address							
Owner Name Petroglyph Energy, Inc.												Owner Name Petroglyph Energy, Inc.							
Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600			Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600				
City Boise			State ID			ZIP CODE 83707			City Boise			State ID			ZIP CODE 83707				
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes										
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator													
VIII. Well Status (Mark "x")																			
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed											
IX. Type of Permit Requested (Mark "x" and specify if required)																			
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 20-07									
X. Class and Type of Well (see reverse)																			
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain						D. Number of wells per type (if area permit)									
II		R								1 well, type R									
XI. Location of Well(s) or Approximate Center of Field or Project												XII. Indian Lands (Mark 'x')							
Latitude			Longitude			Township and Range												<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line						
						20	SS	3W	NE										
XIII. Attachments																			
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)																			
For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																			
XIV. Certification																			
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)																			
A. Name and Title (Type or Print)												B. Phone No. (Area Code and No.)							
Kevin Dickey, Vice President, Operations												(208) 685-7600							
C. Signature												D. Date Signed							
												07/27/2015							

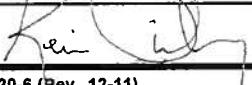
United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>													
Read Attached Instructions Before Starting For Official Use Only													
Application approved mo day year			Date received mo day year			Permit Number		Well ID		FINDS Number			
II. Owner Name and Address						III. Operator Name and Address							
Owner Name Petroglyph Energy, Inc.						Owner Name Petroglyph Energy, Inc.							
Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600		Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600			
City Boise		State ID		ZIP CODE 83707		City Boise		State ID		ZIP CODE 83707			
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes				
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator							
VIII. Well Status (Mark "x")													
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed					
IX. Type of Permit Requested (Mark "x" and specify if required)													
<input type="checkbox"/> A. Individual			<input checked="" type="checkbox"/> B. Area		Number of Existing Wells 111		Number of Proposed Wells 1		Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 20-11				
X. Class and Type of Well (see reverse)													
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain				D. Number of wells per type (if area permit) 1 well, type R					
II		R											
XI. Location of Well(s) or Approximate Center of Field or Project													
Latitude			Longitude			Township and Range						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line
						20	SS	3W	SW				
XII. Indian Lands (Mark 'x')													
XIII. Attachments (Complete the following questions on a separate sheet(s) and number accordingly; see instructions)													
For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.													
XIV. Certification													
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)													
A. Name and Title (Type or Print) Kevin Dickey, Vice President, Operations						B. Phone No. (Area Code and No.) (208) 685-7600							
C. Signature 						D. Date Signed 07/27/2015							

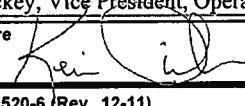
United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>											
Read Attached Instructions Before Starting For Official Use Only											
Application approved mo day year			Date received mo day year			Permit Number		Well ID		FINDS Number	
II. Owner Name and Address											
Owner Name Petroglyph Energy, Inc.						III. Operator Name and Address					
Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600		Street Address 960 Broadway Ave. Suite 500 PO Box 70019				Phone Number (208) 685-7600	
City Boise			State ID	ZIP CODE 83707		City Boise			State ID	ZIP CODE 83707	
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes		
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator					
VIII. Well Status (Mark "x")											
<input checked="" type="checkbox"/> A <small>Operating</small>		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed			
IX. Type of Permit Requested (Mark "x" and specify if required)											
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111		Number of Proposed Wells 1		Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 20-15			
X. Class and Type of Well (see reverse)											
A. Class(es) (enter code(s)) II		B. Type(s) (enter code(s)) R		C. If class is "other" or type is code 'x,' explain				D. Number of wells per type (if area permit) 1 well, type R			
XI. Location of Well(s) or Approximate Center of Field or Project											
Latitude			Longitude			Township and Range					
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line
						20	SS	3W	SE		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
XIII. Attachments											
<i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A--U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.											
XIV. Certification											
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)											
A. Name and Title (Type or Print) Kevin Dickey, Vice President, Operations						B. Phone No. (Area Code and No.) (208) 685-7600					
C. Signature 						D. Date Signed 07/27/2015					

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number							
												T/A		C					
U																			
Read Attached Instructions Before Starting For Official Use Only																			
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number							
II. Owner Name and Address												III. Operator Name and Address							
Owner Name Petroglyph Energy, Inc.												Owner Name Petroglyph Energy, Inc.							
Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600			Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600				
City Boise			State ID			ZIP CODE 83707			City Boise			State ID			ZIP CODE 83707				
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes										
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator													
VIII. Well Status (Mark "x")																			
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed											
IX. Type of Permit Requested (Mark "x" and specify if required)																			
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 31-03									
X. Class and Type of Well (see reverse)																			
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain						D. Number of wells per type (if area permit) 1 well, type R									
II		R																	
XI. Location of Well(s) or Approximate Center of Field or Project												XII. Indian Lands (Mark 'x')							
Latitude			Longitude			Township and Range												<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line						
						31	SS	3W	NW										
XIII. Attachments																			
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)																			
For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																			
XIV. Certification																			
<p>I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)</p>																			
A. Name and Title (Type or Print)												B. Phone No. (Area Code and No.)							
Kevin Dickey, Vice President, Operations												(208) 685-7600							
C. Signature												D. Date Signed							
												07/27/2015							

United States Environmental Protection Agency Underground Injection Control Permit Application (Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)										I. EPA ID Number	T/A	C																	
										U																			
Read Attached Instructions Before Starting For Official Use Only																													
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number																	
II. Owner Name and Address										III. Operator Name and Address																			
Owner Name Petroglyph Energy, Inc.										Owner Name Petroglyph Energy, Inc.																			
Street Address 960 Broadway Ave. Suite 500 PO Box 70019					Phone Number (208) 685-7600					Street Address 960 Broadway Ave. Suite 500 PO Box 70019					Phone Number (208) 685-7600														
City Boise					State ID					ZIP CODE 83707					City Boise					State ID					ZIP CODE 83707				
IV. Commercial Facility					V. Ownership					VI. Legal Contact					VII. SIC Codes														
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other					<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator																			
VIII. Well Status (Mark "x")																													
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion				<input type="checkbox"/> C. Proposed																				
<input type="checkbox"/> A. Individual		<input checked="" type="checkbox"/> B. Area			Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 31-05																		
IX. Type of Permit Requested (Mark "x" and specify if required)																													
<input type="checkbox"/> A. Class(es) (enter code(s))		<input checked="" type="checkbox"/> B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain									D. Number of wells per type (if area permit) 1 well, type R																
II		R																											
X. Class and Type of Well (see reverse)																													
XI. Location of Well(s) or Approximate Center of Field or Project			XII. Indian Lands (Mark 'x')																										
Latitude Deg Min Sec			Longitude Deg Min Sec			Township and Range Sec Twp Range 1/4 Sec				Feet From Line		Feet From Line		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No															
						31 SS 3W NW																							
XIII. Attachments																													
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)																													
For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A--U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																													
XIV. Certification																													
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)																													
A. Name and Title (Type or Print) Kevin Dickey, Vice President, Operations							B. Phone No. (Area Code and No.) (208) 685-7600																						
C. Signature 							D. Date Signed 07/27/2015																						

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number U		T/A	C				
Read Attached Instructions Before Starting For Official Use Only																			
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number							
<input type="text"/>			<input type="text"/>			<input type="text"/>			<input type="text"/>			<input type="text"/>							
II. Owner Name and Address												III. Operator Name and Address							
Owner Name <input type="text"/> Petroglyph Energy, Inc.												Owner Name <input type="text"/> Petroglyph Energy, Inc.							
Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number <input type="text"/> (208) 685-7600			Street Address <input type="text"/> 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number <input type="text"/> (208) 685-7600				
City <input type="text"/> Boise			State <input type="text"/> ID			ZIP CODE <input type="text"/> 83707			City <input type="text"/> Boise			State <input type="text"/> ID			ZIP CODE <input type="text"/> 83707				
IV. Commercial Facility				V. Ownership				VI. Legal Contact				VII. SIC Codes							
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other				<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator				<input type="text"/>							
VIII. Well Status (Mark "x")																			
<input checked="" type="checkbox"/> A <small>Operating</small>		Date Started mo day year <input type="text"/>			<input checked="" type="checkbox"/> B. Modification/Conversion 			<input type="checkbox"/> C. Proposed											
IX. Type of Permit Requested (Mark "x" and specify if required)																			
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells <input type="text"/> 111			Number of Proposed Wells <input type="text"/> 1			Name(s) of field(s) or project(s) <input type="text"/> Antelope Creek Ute Tribal 31-07									
X. Class and Type of Well (see reverse)																			
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain <input type="text"/>								D. Number of wells per type (if area permit) <input type="text"/> 1 well, type R							
<input type="text"/> II		<input type="text"/> R																	
XI. Location of Well(s) or Approximate Center of Field or Project												XII. Indian Lands (Mark 'x')							
Latitude			Longitude			Township and Range												<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line	Feet From	Line				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> 31	<input type="text"/> 5S	<input type="text"/> 3W	<input type="text"/> NE	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
XIII. Attachments																			
<i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																			
XIV. Certification																			
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)																			
A. Name and Title (Type or Print)												B. Phone No. (Area Code and No.)							
<input type="text"/> Kevin Dickey, Vice President, Operations												<input type="text"/> (208) 685-7600							
C. Signature												D. Date Signed							
												<input type="text"/> 07/27/2015							

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number U	T/A	C			
<i>Read Attached Instructions Before Starting For Official Use Only</i>																	
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number					
II. Owner Name and Address												III. Operator Name and Address					
Owner Name Petroglyph Energy, Inc.												Owner Name Petroglyph Energy, Inc.					
Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600			Street Address 960 Broadway Ave. Suite 500 PO Box 70019						Phone Number (208) 685-7600		
City Boise			State ID		ZIP CODE 83707		City Boise			State ID		ZIP CODE 83707					
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes								
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator											
VIII. Well Status (Mark "x")																	
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed									
IX. Type of Permit Requested (Mark "x" and specify if required)																	
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 31-12							
X. Class and Type of Well (see reverse)																	
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain					D. Number of wells per type (if area permit) 1 well, type R								
II		R															
XI. Location of Well(s) or Approximate Center of Field or Project												XII. Indian Lands (Mark 'x')					
Latitude			Longitude			Township and Range									<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line				
						31	5S	3W	SW								
XIII. Attachments																	
<i>(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)</i> For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																	
XIV. Certification																	
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)																	
A. Name and Title (Type or Print)												B. Phone No. (Area Code and No.)					
Kevin Dickey, Vice President, Operations												<input type="text" value="Area Code and No."/> <input type="text" value="208 685-7600"/>					
C. Signature												D. Date Signed					
												<input type="text" value="07/27/2015"/>					

United States Environmental Protection Agency Underground Injection Control Permit Application <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>												I. EPA ID Number				
												T/A	C			
												U				
Read Attached Instructions Before Starting For Official Use Only																
Application approved mo day year			Date received mo day year			Permit Number			Well ID			FINDS Number				
II. Owner Name and Address										III. Operator Name and Address						
Owner Name Petroglyph Energy, Inc.										Owner Name Petroglyph Energy, Inc.						
Street Address 960 Broadway Ave. Suite 500 PO Box 70019					Phone Number (208) 685-7600		Street Address 960 Broadway Ave. Suite 500 PO Box 70019					Phone Number (208) 685-7600				
City Boise			State ID		ZIP CODE 83707		City Boise			State ID		ZIP CODE 83707				
IV. Commercial Facility			V. Ownership			VI. Legal Contact			VII. SIC Codes							
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other			<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator										
VIII. Well Status (Mark "x")																
<input checked="" type="checkbox"/> A Operating		Date Started mo day year			<input checked="" type="checkbox"/> B. Modification/Conversion			<input type="checkbox"/> C. Proposed								
IX. Type of Permit Requested (Mark "x" and specify if required)																
<input type="checkbox"/> A. Individual <input checked="" type="checkbox"/> B. Area				Number of Existing Wells 111			Number of Proposed Wells 1			Name(s) of field(s) or project(s) Antelope Creek Ute Tribal 36-08-E4						
X. Class and Type of Well (see reverse)																
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain						D. Number of wells per type (if area permit)						
II		R								1 well, type R						
XI. Location of Well(s) or Approximate Center of Field or Project														XII. Indian Lands (Mark 'x')		
Latitude			Longitude			Township and Range										<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line			
						36	5S	4W	NE							
XIII. Attachments																
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)																
For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A--U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.																
XIV. Certification																
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)																
A. Name and Title (Type or Print) Kevin Dickey, Vice President, Operations														B. Phone No. (Area Code and No.) (208) 685-7600		
C. Signature 														D. Date Signed 07/27/2015		

ATTACHMENT NO. 10

WELL BORE DIAGRAMS FOR THE UIC WELL

Ute Tribal 31-03 Well History

Well History:

Spud Well: 6/11/19687
 Completed: 8/13/1987
 First Production: 8/15/1987

Tops (KB):

BMSW* Found at 1753'

Green River 1497'
A Marker 3968'
 X Marker 4451'
 Douglas Creek 4590'
 B Limestone 4962'
 Castle Peak 5455'

Basal Carbonate 5944'

Perf History

8/5/1987

B02	4002' to 4012'
C05.5	4741' to 4747'
C09.2	4909' to 4915'
D3	5031' to 5037'
D7	5207' to 5216'
E07	5845' to 5853'

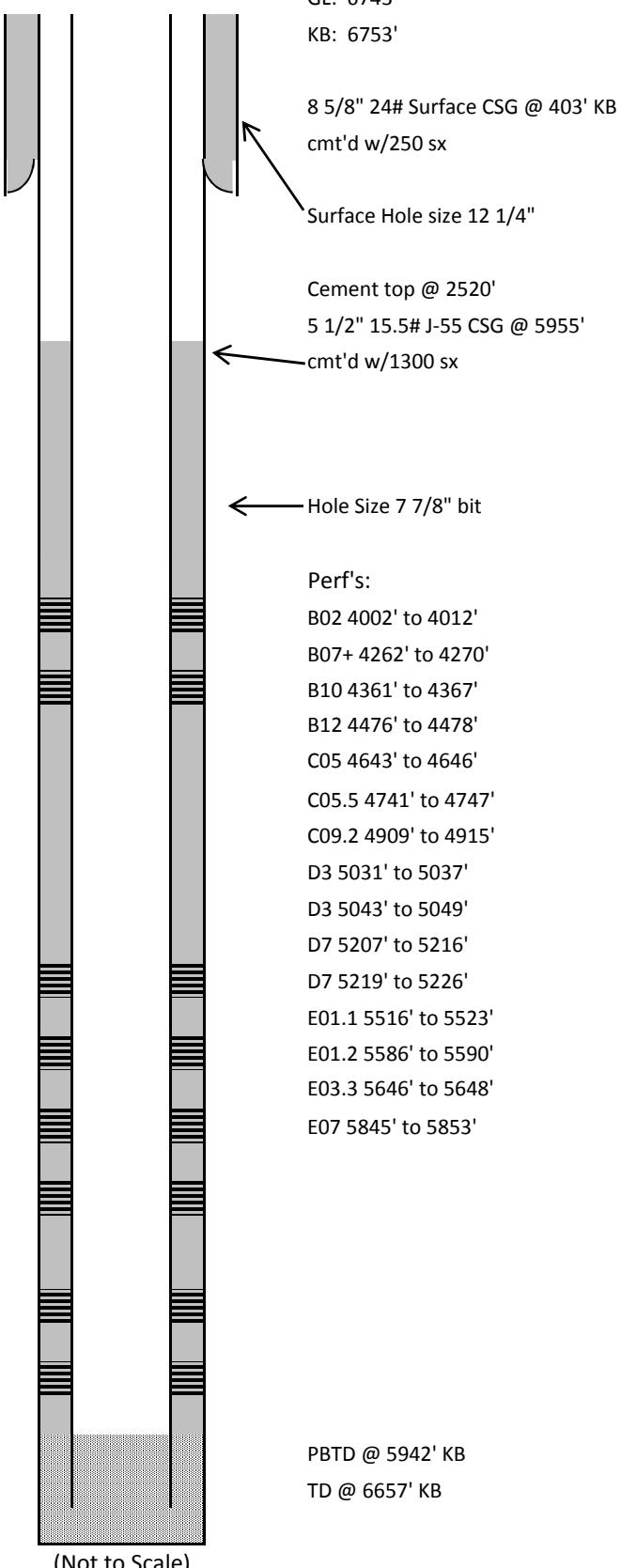
4/19/2012

B07+	4262' to 4270'
B10	4361' to 4367'
B12	4476' to 4478'
C05	4643' to 4646'
D3	5043' to 5049'
D7	5219' to 5226'
E01.1	5516' to 5523'
E01.2	5586' to 5590'
E03.3	5646' to 5648'

Petroglyph Operating Co., Inc.

Ute Tribal #31-03
 (422' FNL & 2338' FWL)
 NE NW Section 31, 5S- 3W
 Antelope Creek Field
 Duchesne Co. Utah
 API#: 43013311880000

*Plate 1 Utah Geological Survey Special Study 144.
 (2012). *BMSW Elevation Contour Map, Uinta Basin, Utah.* [map]. (CA 1:200,000)



Ute Tribal 31-03 Injection

Well History:

Spud Well: 6/11/19687
 Completed: 8/13/1987
 First Production: 8/15/1987

Tops (KB):

BMSW* Found at 1753'

Green River 1497'

A Marker 3968'

X Marker 4451'

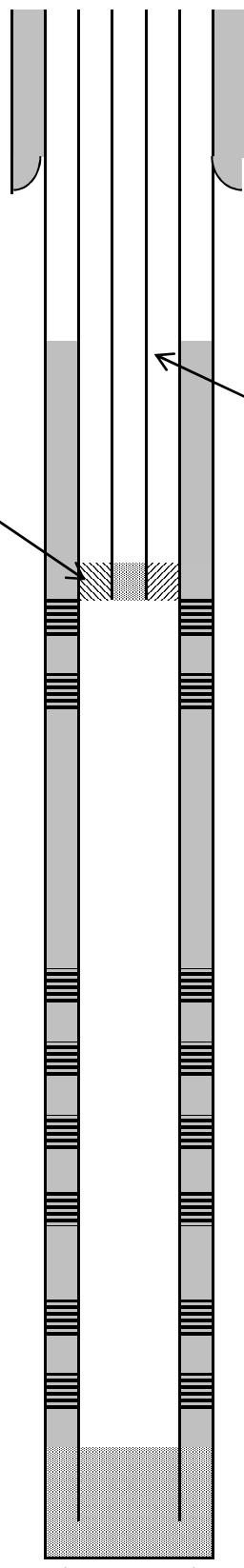
Douglas Creek 4590'

B Limestone 4962'

Castle Peak 5455'

Basal Carbonate 5944'

Injection packer @ 3912'



GL: 6743'

KB: 6753'

8 5/8" 24# Surface CSG @ 403' KB

cmt'd w/250 sx

Surface Hole size 12 1/4"

Cement top @ 2520'

5 1/2" 15.5# J-55 CSG @ 5955'

cmt'd w/1300 sx

Tubing 2 7/8" 6.5# J55

Hole Size 7 7/8" bit

Perf's:

B02 4002' to 4012'

B07+ 4262' to 4270'

B10 4361' to 4367'

B12 4476' to 4478'

C05 4643' to 4646'

C05.5 4741' to 4747'

C09.2 4909' to 4915'

D3 5031' to 5037'

D3 5043' to 5049'

D7 5207' to 5216'

D7 5219' to 5226'

E01.1 5516' to 5523'

E01.2 5586' to 5590'

E03.3 5646' to 5648'

E07 5845' to 5853'

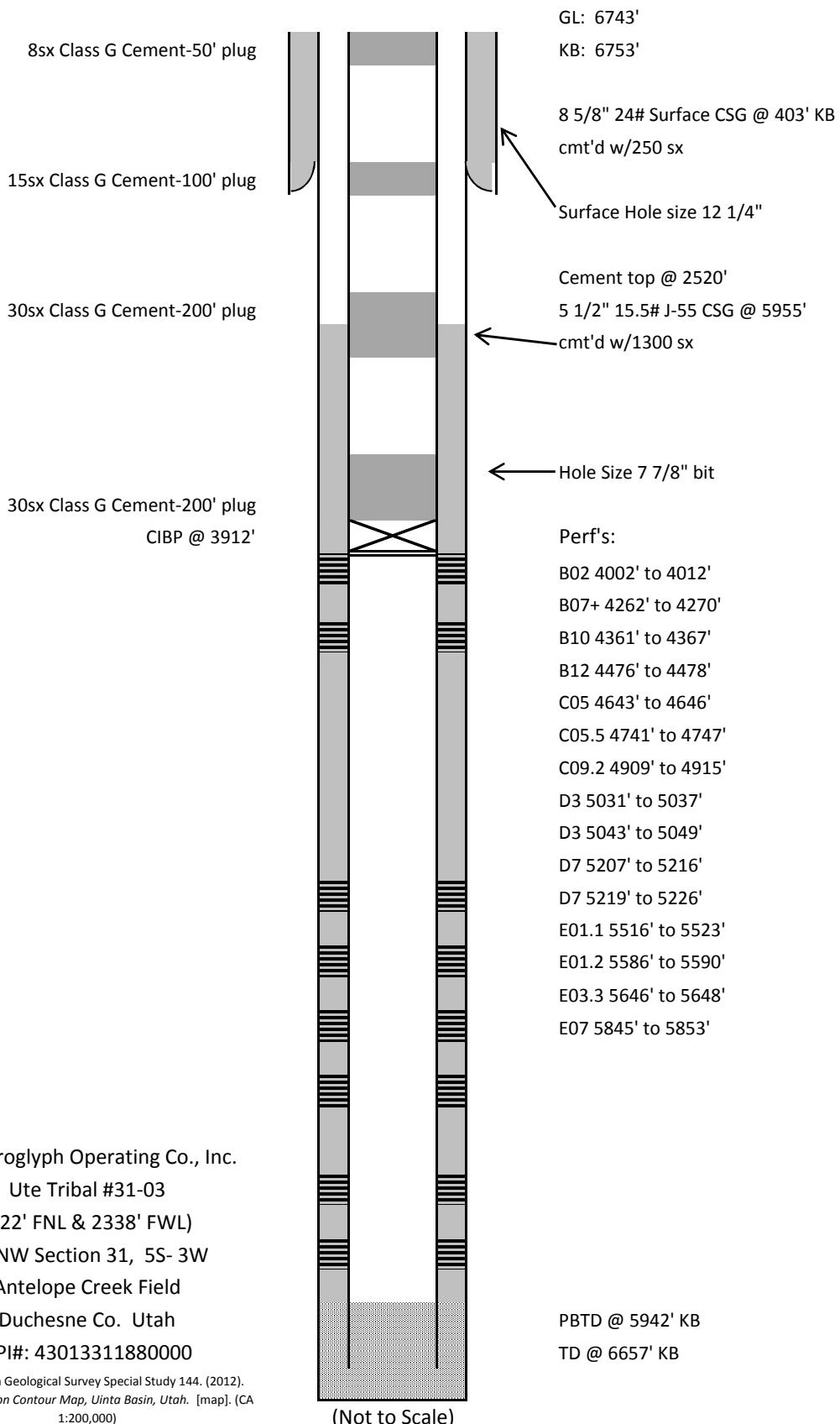
PBTD @ 5942' KB

TD @ 6657' KB

Petroglyph Operating Co., Inc.
 Ute Tribal #31-03
 (422' FNL & 2338' FWL)
 NE NW Section 31, 5S- 3W
 Antelope Creek Field
 Duchesne Co. Utah
 API#: 43013311880000

*Plate 1 Utah Geological Survey Special Study 144.
 (2012). *BMSW Elevation Contour Map, Uinta Basin,*
Utah. [map]. (CA 1:200,000)

Ute Tribal 31-03 Plug and Abandonment



*Plate 1 Utah Geological Survey Special Study 144. (2012).
BMSW Elevation Contour Map, Uinta Basin, Utah. [map]. (CA
1:200,000)

ATTACHMENT NO. 11

P&A PROCEDURE

Plug and Abandonment Procedure

Ute Tribal 31-03

43-013-31188

1. Obtain authorization from regulatory agencies for P&A procedures.
2. Set deadman. Rig up pulling unit. Rig down wellhead. Install BOP. Release packer. Trip out of hole with tubing and packer.
3. RIH Set CIBP @ 3912'.
4. Trip in hole with tubing. Establish pump rate, spot 30sxs Class G cement on top of CIBP. This will be a 200' plug.
5. Raise the tubing to 2520' and set balanced 200' cement plug using 30sxs of Class G cement.
6. Raise the tubing to 403' and set balanced 100' cement plug using 15sxs of Class G cement.
7. Set balanced 50' cement plug (8sxs of Class G cement) from 50' to surface.
8. Cut off wellhead. Install plate and identification P&A post marker. Weld to casing.
9. File reports with the agencies and reclaim surface locations.

ATTACHMENT NO. 12

MIT PROCEDURE

Mechanical Integrity Test Procedure

Ute Tribal 31-03

43-013-31188

Integrity testing can be accomplished by pressuring up the annulus between the casing and the tubing. The pressure and duration of the test will be as required by the EPA.

Test Procedure Details:

1. Two weeks prior, notify EPA of pending work. Shut well in.
2. Record fluid level with echometer.
3. MIRU Service Unit.
4. POOH laying down rods and pump.
5. ND Wellhead. NU BOPs. POOH laying down 2 7/8" tubing.
6. PU plug and packer and new tubing. RIH and breakdown perfs.
7. POOH. RIH with injection packer to 3912'.
8. Reverse circulate in packer fluid.
9. Set packer and ND BOPs and NU wellhead.
10. Pressure test casing-tubing annulus to 1500psi for 15 minutes.
11. RDMO.
12. Notify EPA of test, wait for approval.
13. Return to injection.

ATTACHMENT NO. 13
SURETY BOND LETTER

**SURETY BOND STATEMENT**

July 27, 2015

Petroglyph currently operates 111 injection wells in Antelope Creek Field under EPA UIC Area Permit UT2736-00000. The existing wells are covered by UIC Bond No. LPM 4138351.

Prior to final permit approval, Petroglyph will add a rider to the existing bond to include this well along with the other wells being submitted to EPA at this time.

Kevin Dickey

V.P., Operations

Petroglyph Energy, Inc.

PETROGLYPH OPERATING COMPANY, INC.